UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q
QUARTERLY REPORT PURSUANT TO SECTION 13 or 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934
FOR THE QUARTER ENDED MARCH 31, 2022

1-2360
(Commission file number)

INTERNATIONAL BUSINESS MACHINES CORPORATION
(Exact name of registrant as specified in its charter)

New York	**13-0871985**
(State of incorporation)	(IRS employer identification number)
One New Orchard Road **Armonk, New York**	**10504**
(Address of principal executive offices)	(Zip Code)

914-499-1900
(Registrant's telephone number)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Capital stock, par value $.20 per share	IBM	New York Stock Exchange NYSE Chicago
2.625% Notes due 2022	IBM 22A	New York Stock Exchange
1.250% Notes due 2023	IBM 23A	New York Stock Exchange
0.375% Notes due 2023	IBM 23B	New York Stock Exchange
1.125% Notes due 2024	IBM 24A	New York Stock Exchange
2.875% Notes due 2025	IBM 25A	New York Stock Exchange
0.950% Notes due 2025	IBM 25B	New York Stock Exchange
0.875% Notes due 2025	IBM 25C	New York Stock Exchange
0.300% Notes due 2026	IBM 26B	New York Stock Exchange
1.250% Notes due 2027	IBM 27B	New York Stock Exchange
0.300% Notes due 2028	IBM 28B	New York Stock Exchange
1.750% Notes due 2028	IBM 28A	New York Stock Exchange
1.500% Notes due 2029	IBM 29	New York Stock Exchange
0.875% Notes due 2030	IBM 30	New York Stock Exchange
1.750% Notes due 2031	IBM 31	New York Stock Exchange
0.650% Notes due 2032	IBM 32A	New York Stock Exchange
1.250% Notes due 2034	IBM 34	New York Stock Exchange
1.200% Notes due 2040	IBM 40	New York Stock Exchange
7.00% Debentures due 2025	IBM 25	New York Stock Exchange
6.22% Debentures due 2027	IBM 27	New York Stock Exchange
6.50% Debentures due 2028	IBM 28	New York Stock Exchange
7.00% Debentures due 2045	IBM 45	New York Stock Exchange
7.125% Debentures due 2096	IBM 96	New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section l3 or l5(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒	Accelerated filer ☐
Non-accelerated filer ☐	Smaller reporting company ☐
	Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The registrant had 899,435,325 shares of common stock outstanding at March 31, 2022.

Index

	Page
Part I - Financial Information:	
Item 1. Consolidated Financial Statements (Unaudited):	
Consolidated Income Statement for the three months ended March 31, 2022 and 2021	3
Consolidated Statement of Comprehensive Income for the three months ended March 31, 2022 and 2021	4
Consolidated Balance Sheet at March 31, 2022 and December 31, 2021	5
Consolidated Statement of Cash Flows for the three months ended March 31, 2022 and 2021	7
Consolidated Statement of Equity for the three months ended March 31, 2022 and 2021	8
Notes to Consolidated Financial Statements	9
Item 2. Management's Discussion and Analysis of Results of Operations and Financial Condition	44
Item 4. Controls and Procedures	75
Part II - Other Information:	
Item 1. Legal Proceedings	76
Item 2. Unregistered Sales of Equity Securities and Use of Proceeds and Issuer Repurchases of Equity Securities	76
Item 5. Other Information	76
Item 6. Exhibits	77

Part I - Financial Information

Item 1. Consolidated Financial Statements:

INTERNATIONAL BUSINESS MACHINES CORPORATION
AND SUBSIDIARY COMPANIES
CONSOLIDATED INCOME STATEMENT
(UNAUDITED)

(Dollars in millions except per share amounts)	Three Months Ended March 31, 2022	2021*
Revenue:		
Services	$ 7,703	$ 7,096
Sales	6,339	5,880 **
Financing	155	211 **
Total revenue	14,197	13,187
Cost:		
Services	5,349	4,644
Sales	1,415	1,379 **
Financing	98	137 **
Total cost	6,862	6,160
Gross profit	7,335	7,027
Expense and other (income):		
Selling, general and administrative	4,597	4,688
Research, development and engineering	1,679	1,616
Intellectual property and custom development income	(121)	(146)
Other (income) and expense	246	346
Interest expense	311	280
Total expense and other (income)	6,712	6,784
Income from continuing operations before income taxes	623	244
Provision for/(benefit from) income taxes	(39)	(160)
Income from continuing operations	$ 662	$ 403
Income from discontinued operations, net of tax	71	552
Net income	$ 733	$ 955
Earnings/(loss) per share of common stock:		
Assuming dilution:		
Continuing operations	$ 0.73	$ 0.45
Discontinued operations	0.08	0.61
Total	$ 0.81	$ 1.06
Basic:		
Continuing operations	$ 0.74	$ 0.45
Discontinued operations	0.08	0.62
Total	$ 0.82	$ 1.07
Weighted-average number of common shares outstanding: (millions)		
Assuming dilution	909.2	901.7
Basic	899.3	893.6

* Reclassified to reflect discontinued operations presentation.
** Reclassified to conform to current year presentation.

(Amounts may not add due to rounding.)
(The accompanying notes are an integral part of the financial statements.)

INTERNATIONAL BUSINESS MACHINES CORPORATION
AND SUBSIDIARY COMPANIES
CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
(UNAUDITED)

(Dollars in millions)	Three Months Ended March 31, 2022	2021*
Net income	$ 733	$ 955
Other comprehensive income/(loss), before tax:		
Foreign currency translation adjustments	442	549
Net changes related to available-for-sale securities:		
Unrealized gains/(losses) arising during the period	0	0
Reclassification of (gains)/losses to net income	—	—
Total net changes related to available-for-sale securities	0	0
Unrealized gains/(losses) on cash flow hedges:		
Unrealized gains/(losses) arising during the period	60	187
Reclassification of (gains)/losses to net income	(1)	160
Total unrealized gains/(losses) on cash flow hedges	59	347
Retirement-related benefit plans:		
Prior service costs/(credits)	(5)	0
Net (losses)/gains arising during the period	9	20
Curtailments and settlements	8	17
Amortization of prior service (credits)/costs	7	3
Amortization of net (gains)/losses	468	648
Total retirement-related benefit plans	486	689
Other comprehensive income/(loss), before tax	987	1,586
Income tax (expense)/benefit related to items of other comprehensive income	(285)	(505)
Other comprehensive income/(loss), net of tax	703	1,080
Total comprehensive income	$ 1,436	$ 2,036

* Amounts presented have not been recast to exclude discontinued operations.

(Amounts may not add due to rounding.)
(The accompanying notes are an integral part of the financial statements.)

INTERNATIONAL BUSINESS MACHINES CORPORATION
AND SUBSIDIARY COMPANIES
CONSOLIDATED BALANCE SHEET
(UNAUDITED)

ASSETS

(Dollars in millions)	At March 31, 2022	At December 31, 2021
Assets:		
Current assets:		
Cash and cash equivalents	$ 9,934	$ 6,650
Restricted cash	286	307
Marketable securities	550	600
Notes and accounts receivable — trade (net of allowances of $225 in 2022 and $218 in 2021)	5,963	6,754
Short-term financing receivables:		
Held for investment (net of allowances of $157 in 2022 and $176 in 2021)	6,759	7,221
Held for sale	410	793
Other accounts receivable (net of allowances of $28 in 2022 and $24 in 2021)	1,003	1,002
Inventory, at lower of average cost or net realizable value:		
Finished goods	269	208
Work in process and raw materials	1,507	1,442
Total inventory	1,776	1,649
Deferred costs	1,103	1,097
Prepaid expenses and other current assets	3,548	3,466
Total current assets	31,330	29,539
Property, plant and equipment	20,006	20,085
Less: Accumulated depreciation	14,448	14,390
Property, plant and equipment — net	5,559	5,694
Operating right-of-use assets — net	3,108	3,222
Long-term financing receivables (net of allowances of $21 in 2022 and $25 in 2021)	4,610	5,425
Prepaid pension assets	9,995	9,850
Deferred costs	916	924
Deferred taxes	7,567	7,370
Goodwill	56,106	55,643
Intangible assets — net	12,312	12,511
Investments and sundry assets	1,771	1,823
Total assets	$ 133,275	$ 132,001

(Amounts may not add due to rounding.)
(The accompanying notes are an integral part of the financial statements.)

INTERNATIONAL BUSINESS MACHINES CORPORATION
AND SUBSIDIARY COMPANIES
CONSOLIDATED BALANCE SHEET – (CONTINUED)
(UNAUDITED)

LIABILITIES AND EQUITY

(Dollars in millions except per share amounts)	At March 31, 2022	At December 31, 2021
Liabilities:		
Current liabilities:		
Taxes	$ 1,798	$ 2,289
Short-term debt	7,690	6,787
Accounts payable	3,453	3,955
Compensation and benefits	2,937	3,204
Deferred income	13,526	12,518
Operating lease liabilities	954	974
Other accrued expenses and liabilities	3,699	3,892
Total current liabilities	34,056	33,619
Long-term debt	46,545	44,917
Retirement and nonpension postretirement benefit obligations	13,937	14,435
Deferred income	3,423	3,577
Operating lease liabilities	2,358	2,462
Other liabilities	13,844	13,996
Total liabilities	114,162	113,005
Equity:		
IBM stockholders' equity:		
Common stock, par value $0.20 per share, and additional paid-in capital Shares authorized: 4,687,500,000 Shares issued: 2022 - 2,250,139,983 2021 - 2,248,577,848	57,603	57,319
Retained earnings	153,401	154,209
Treasury stock - at cost Shares: 2022 - 1,350,704,659 2021 - 1,350,509,249	(169,422)	(169,392)
Accumulated other comprehensive income/(loss)	(22,532)	(23,234)
Total IBM stockholders' equity	19,050	18,901
Noncontrolling interests	62	95
Total equity	19,112	18,996
Total liabilities and equity	$ 133,275	$ 132,001

(Amounts may not add due to rounding.)
(The accompanying notes are an integral part of the financial statements.)

INTERNATIONAL BUSINESS MACHINES CORPORATION
AND SUBSIDIARY COMPANIES
CONSOLIDATED STATEMENT OF CASH FLOWS
(UNAUDITED)

(Dollars in millions)	Three Months Ended March 31, 2022	2021
Cash flows from operating activities:		
Net income	$ 733	$ 955
Adjustments to reconcile net income to cash provided by operating activities		
Depreciation	631	1,052
Amortization of intangibles	625	620
Stock-based compensation	234	213
Net (gain)/loss on asset sales and other	(51)	7
Changes in operating assets and liabilities, net of acquisitions/divestitures	1,076	2,066
Net cash provided by operating activities	3,248	4,914
Cash flows from investing activities:		
Payments for property, plant and equipment	(281)	(494)
Proceeds from disposition of property, plant and equipment	72	139
Investment in software	(169)	(175)
Acquisition of businesses, net of cash acquired	(698)	(1,120)
Divestitures of businesses, net of cash transferred	61	(15)
Non-operating finance receivables — net	0	(9)
Purchases of marketable securities and other investments	(1,025)	(875)
Proceeds from disposition of marketable securities and other investments	682	549
Net cash provided by/(used in) investing activities	(1,358)	(2,000)
Cash flows from financing activities:		
Proceeds from new debt	4,084	51
Payments to settle debt	(1,129)	(4,261)
Short-term borrowings/(repayments) less than 90 days — net	(8)	(89)
Common stock repurchases for tax withholdings	(80)	(41)
Financing — other	(15)	15
Cash dividends paid	(1,475)	(1,457)
Net cash provided by/(used in) financing activities	1,377	(5,783)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(5)	(134)
Net change in cash, cash equivalents and restricted cash	3,263	(3,002)
Cash, cash equivalents and restricted cash at January 1	6,957	13,675
Cash, cash equivalents and restricted cash at March 31	$ 10,219	$ 10,673

Cash flows are presented on an IBM consolidated basis. Refer to note 3, "Separation of Kyndryl," for additional information related to cash flows from Kyndryl discontinued operations.

(Amounts may not add due to rounding.)
(The accompanying notes are an integral part of the financial statements.)

INTERNATIONAL BUSINESS MACHINES CORPORATION
AND SUBSIDIARY COMPANIES
CONSOLIDATED STATEMENT OF EQUITY
(UNAUDITED)

(Dollars in millions except per share amounts)	Common Stock and Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income/(Loss)	Total IBM Stockholders' Equity	Non-Controlling Interests	Total Equity
Equity - January 1, 2022	$ 57,319	$ 154,209	$ (169,392)	$ (23,234)	$ 18,901	$ 95	$ 18,996
Net income plus other comprehensive income/(loss):							
Net income		733			733		733
Other comprehensive income/(loss)				703	703		703
Total comprehensive income/(loss)					$ 1,436		$ 1,436
Cash dividends paid — common stock ($1.64 per share)		(1,475)			(1,475)		(1,475)
Common stock issued under employee plans (1,562,135 shares)	221				221		221
Purchases (595,710 shares) and sales (400,300 shares) of treasury stock under employee plans — net		(3)	(30)		(34)		(34)
Other equity	63	(63)			0		0
Changes in noncontrolling interests						(33)	(33)
Equity – March 31, 2022	$ 57,603	$ 153,401	$ (169,422)	$ (22,532)	$ 19,050	$ 62	$ 19,112

(Dollars in millions except per share amounts)	Common Stock and Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income/(Loss)	Total IBM Stockholders' Equity	Non-Controlling Interests	Total Equity
Equity - January 1, 2021	$ 56,556	$ 162,717	$ (169,339)	$ (29,337)	$ 20,597	$ 129	$ 20,727
Net income plus other comprehensive income/(loss):							
Net income		955			955		955
Other comprehensive income/(loss)				1,080	1,080		1,080
Total comprehensive income/(loss)					$ 2,036		$ 2,036
Cash dividends paid — common stock ($1.63 per share)		(1,457)			(1,457)		(1,457)
Common stock issued under employee plans (1,046,184 shares)	232				232		232
Purchases (339,506 shares) and sales (162,726 shares) of treasury stock under employee plans — net		2	(21)		(18)		(18)
Changes in noncontrolling interests						(6)	(6)
Equity - March 31, 2021	$ 56,788	$ 162,218	$ (169,360)	$ (28,257)	$ 21,389	$ 124	$ 21,513

(Amounts may not add due to rounding.)
(The accompanying notes are an integral part of the financial statements.)

Notes to Consolidated Financial Statements

1. Basis of Presentation:

The accompanying Consolidated Financial Statements and footnotes of the International Business Machines Corporation (IBM or the company) have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The financial statements and footnotes are unaudited. In the opinion of the company's management, these statements include all adjustments, which are only of a normal recurring nature, necessary to present a fair statement of the company's results of operations, financial position and cash flows.

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amount of assets, liabilities, revenue, costs, expenses and other comprehensive income/(loss) that are reported in the Consolidated Financial Statements and accompanying disclosures. These estimates are based on management's best knowledge of current events, historical experience, actions that the company may undertake in the future and on various other assumptions that are believed to be reasonable under the circumstances. As a result, actual results may be different from these estimates.

On November 3, 2021, the company completed the separation of its managed infrastructure services unit into a new public company with the distribution of 80.1 percent of the outstanding common stock of Kyndryl Holdings, Inc. (Kyndryl) to IBM stockholders on a pro rata basis. To effect the separation, IBM stockholders received one share of Kyndryl common stock for every five shares of IBM common stock held at the close of business on October 25, 2021, the record date for the distribution. The company retained 19.9 percent of the shares of Kyndryl common stock immediately following the separation with the intent to dispose of such shares within twelve months after the distribution. The company accounts for the retained Kyndryl common stock as a fair value investment included within prepaid expenses and other current assets in the Consolidated Balance Sheet with subsequent fair value changes included in other (income) and expense in the Consolidated Income Statement. Refer to note 8, "Financial Assets & Liabilities," for additional information.

The accounting requirements for reporting the separation of Kyndryl as a discontinued operation were met when the separation was completed. Accordingly, the historical results of Kyndryl are presented as discontinued operations and, as such, have been excluded from continuing operations and segment results for all periods presented. Refer to note 3, "Separation of Kyndryl," for additional information.

In the first quarter of 2022, the company realigned its management structure to reflect the planned divestiture of its healthcare data and analytics assets. This change impacted the company's Software segment and Other-divested businesses category. In the fourth quarter of 2021, immediately prior to the separation of Kyndryl, the company made a number of changes to its organizational structure and management system. These changes impacted the company's reportable segments but did not impact the Consolidated Financial Statements. Refer to note 5, "Segments," for additional information on the company's reportable segments. The segments are reported on a comparable basis for all periods.

For the three months ended March 31, 2022, the company recorded a benefit from income taxes of $39 million and its effective tax rate was (6.3) percent. The rate was driven by many factors including the impacts of recently published foreign tax credit regulations, geographical mix of income, incentives, and changes in unrecognized tax benefits. For the three months ended March 31, 2021, the company reported a benefit from income taxes of $160 million and its effective tax rate was (65.5) percent. This tax benefit was primarily related to the resolution of certain tax audits.

Noncontrolling interest amounts of $4.9 million, net of tax, for both the three months ended March 31, 2022 and 2021 are included as a reduction within other (income) and expense in the Consolidated Income Statement.

Interim results are not necessarily indicative of financial results for a full year. The information included in this Form 10-Q should be read in conjunction with the company's 2021 Annual Report.

Within the financial statements and tables presented, certain columns and rows may not add due to the use of rounded numbers for disclosure purposes. Percentages presented are calculated from the underlying whole-dollar amounts. Certain prior period amounts have been reclassified to conform to the current period presentation. This is annotated where applicable. In addition, an adjustment of $63 million between common stock and retained earnings related to the issuance of treasury stock in connection with certain previously issued stock-based compensation awards has been reflected in the Consolidated Balance Sheet and Consolidated Statement of Equity at March 31, 2022.

2. Accounting Changes:

New Standards to be Implemented

Disclosures about Government Assistance

Standard/Description–Issuance date: November 2021. This guidance requires an entity to provide certain annual disclosures about government assistance received and accounted for by applying a grant or contribution accounting model by analogy.

Effective Date and Adoption Considerations–The guidance is effective for annual disclosures beginning in 2022 and early adoption was permitted. The company will adopt the guidance as of the effective date.

Effect on Financial Statements or Other Significant Matters–As the guidance is a change to disclosures only, the company does not expect it to have a material impact in the consolidated financial results.

Troubled Debt Restructurings and Vintage Disclosures

Standard/Description–Issuance date: March 2022. This eliminates the accounting guidance for troubled debt restructurings and requires an entity to apply the general loan modification guidance to all loan modifications, including those made to customers experiencing financial difficulty, to determine whether the modification results in a new loan or a continuation of an existing loan. The guidance also requires presenting current period gross write-offs by year of origination for financing receivables and net investment in leases.

Effective Date and Adoption Considerations–The amendment is effective January 1, 2023 and early adoption is permitted. The company will adopt the guidance as of the effective date.

Effect on Financial Statements or Other Significant Matters–The guidance is not expected to have a material impact in the consolidated financial results.

Standards Implemented

Lessors–Certain Leases with Variable Lease Payments

Standard/Description–Issuance date: July 2021. This guidance modifies a lessor's accounting for certain leases with variable lease payments that resulted in the recognition of a day-one loss even if the lessor expected the arrangement to be profitable overall. The amendment requires these types of lease contracts to be classified as operating leases which eliminates any recognition of a day-one loss.

Effective Date and Adoption Considerations–The amendment was effective January 1, 2022 and early adoption was permitted. The company adopted the guidance on a prospective basis as of the effective date.

Effect on Financial Statements or Other Significant Matters–The guidance did not have a material impact in the consolidated financial results.

Revenue Contracts with Customers Acquired in a Business Combination

Standard/Description–Issuance date: October 2021. This guidance requires that an acquirer recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with revenue guidance, as if it

had originated the contracts. Deferred revenue acquired in a business combination is no longer required to be measured at its fair value, but rather will generally be recognized at the same basis as the acquiree.

Effective Date and Adoption Considerations–The amendment is effective January 1, 2023 and early adoption is permitted including adoption in an interim period. The company adopted the guidance as of October 1, 2021 using the retrospective transition method whereby the new guidance was applied to all business combinations that occurred on or after January 1, 2021.

Effect on Financial Statements or Other Significant Matters–The guidance did not have a material impact in the consolidated financial results. The impact of the guidance in IBM's future financial results will be dependent on the nature and size of its acquisitions.

Simplifying the Accounting for Income Taxes

Standard/Description–Issuance date: December 2019. This guidance simplifies various aspects of income tax accounting by removing certain exceptions to the general principle of the guidance and also clarifies and amends existing guidance to improve consistency in application.

Effective Date and Adoption Considerations– The guidance was effective January 1, 2021 and early adoption was permitted. The company adopted the guidance on a prospective basis as of the effective date.

Effect on Financial Statements or Other Significant Matters– The guidance did not have a material impact in the consolidated financial results.

3. Separation of Kyndryl:

On November 3, 2021, the company completed the separation of its managed infrastructure services unit into a new public company with the distribution of 80.1 percent of the outstanding shares of Kyndryl to IBM stockholders on a pro rata basis. The company retained 19.9 percent of the shares of Kyndryl common stock. For additional information on the retained shares, refer to note 8, "Financial Assets & Liabilities." The historical results of Kyndryl have been presented as discontinued operations and, as such, have been excluded from continuing operations and segment results for all periods presented.

The company's presentation of discontinued operations excludes general corporate overhead costs which were historically allocated to Kyndryl, consistent with the company's management system, that do not meet the requirements to be presented in discontinued operations. Such allocations include labor and non-labor expenses related to IBM's corporate support functions (e.g. finance, accounting, tax, treasury, IT, HR, legal, among others) that historically provided support to Kyndryl and transferred to Kyndryl at separation. In addition, discontinued operations excludes the historical intercompany purchases and sales between IBM and Kyndryl that were eliminated in consolidation.

Separation costs of $3 million and $50 million incurred during the three months ended March 31, 2022 and 2021, respectively, are included in income from discontinued operations, net of tax, in the Consolidated Income Statement. These charges primarily relate to transaction and third-party support costs, business separation and applicable employee retention fees, pension settlement charges and related tax charges.

IBM will provide transition services to Kyndryl predominantly consisting of information technology services for a period no longer than two years after the separation. The impact of these transition services on the company's Consolidated Financial Statements for the three months ended March 31, 2022 was not material.

IBM and Kyndryl entered into various commercial agreements pursuant to which Kyndryl will purchase hardware, software and services from IBM for use in the delivery of Kyndryl services agreements and under which IBM will receive services from Kyndryl, related to hosting data centers and servicing IBM's information infrastructure. As part of the separation, IBM has also committed to provide Kyndryl upgraded hardware at no cost to Kyndryl over a two-year period after the separation. The total estimate of IBM's obligation under the agreement at both March 31, 2022 and

December 31, 2021 was $265 million and is included in other accrued expenses and liabilities in the Consolidated Balance Sheet.

The following table presents the major categories of income from discontinued operations:

(Dollars in millions) For the three months ended March 31:	2022	2021*
Revenue	$ 17	$ 4,543
Cost of sales	21	3,365
Selling, general and administrative expense	(6)	488
RD&E and Other (income) and expense	(69)	29
Income from discontinued operations before income taxes	$ 73	$ 661
Provision for income taxes	2	109
Income from discontinued operations, net of tax	$ 71	$ 552

* Excludes intercompany transactions between IBM and Kyndryl and general corporate overhead costs transferred to Kyndryl as discussed above.

Income from discontinued operations, net of tax, for the three months ended March 31, 2022 primarily relates to a joint venture historically managed by Kyndryl, which did not transfer at separation due to the transfer being subject to regulatory approval. Upon receiving regulatory approval in the first quarter of 2022, the company sold its majority shares in the joint venture to Kyndryl, resulting in a pre-tax gain on sale of $68 million. Also reflected in the discontinued operations results are charges related to the settlement of assets and liabilities in accordance with the Separation and Distribution Agreement.

The following table presents selected financial information related to cash flows from discontinued operations:

(Dollars in millions) For the three months ended March 31:	2022	2021
Net cash provided by/(used in) operating activities	$ 0	$ 702 *
Net cash provided by/(used in) investing activities	48	(104)

* Excludes intercompany transactions between IBM and Kyndryl and general corporate overhead costs transferred to Kyndryl as discussed above.

4. Revenue Recognition:

Disaggregation of Revenue

The following tables provide details of revenue by major products/service offerings, hybrid cloud revenue, and revenue by geography.

Revenue by Major Products/Service Offerings

(Dollars in millions) For the three months ended March 31:	2022	2021*
Hybrid Platform & Solutions	$ 4,080	$ 3,800
Transaction Processing	1,692	1,338
Total Software	$ 5,772	$ 5,138
Business Transformation	2,255	1,953
Application Operations	1,619	1,474
Technology Consulting	955	835
Total Consulting	$ 4,829	$ 4,262
Hybrid Infrastructure	1,700	1,782
Infrastructure Support	1,519	1,512
Total Infrastructure	$ 3,219	$ 3,293
Financing**	154	208
Other	224	284
Total revenue	$ 14,197	$ 13,187

* Recast to reflect segment changes.
** Contains lease and loan/working capital financing arrangements which are not subject to the guidance on revenue from contracts with customers.

Hybrid Cloud Revenue by Segment

(Dollars in millions) For the three months ended March 31:	2022	2021*
Software	$ 2,130	$ 1,744
Consulting	2,135	1,722
Infrastructure	672	837
Other	72	87
Total	$ 5,009	$ 4,390

* Recast to reflect segment changes.

Revenue by Geography

(Dollars in millions) For the three months ended March 31:	2022	2021
Americas	$ 7,056	$ 6,477
Europe/Middle East/Africa	4,231	3,928
Asia Pacific	2,910	2,781
Total	$ 14,197	$ 13,187

Remaining Performance Obligations

The remaining performance obligation (RPO) disclosure provides the aggregate amount of the transaction price yet to be recognized as of the end of the reporting period and an explanation as to when the company expects to recognize these amounts in revenue. It is intended to be a statement of overall work under contract that has not yet been performed and does not include contracts in which the customer is not committed, such as certain as-a-Service, governmental, term software license and services offerings. The customer is not considered committed when they are able to terminate for convenience without payment of a substantive penalty. The disclosure includes estimates of variable consideration, except when the variable consideration is a sales-based or usage-based royalty promised in exchange for a license of intellectual property. Additionally, as a practical expedient, the company does not include contracts that have an original duration of one year or less. RPO estimates are subject to change and are affected by several factors, including

terminations, changes in the scope of contracts, periodic revalidations, adjustment for revenue that has not materialized and adjustments for currency.

At March 31, 2022, the aggregate amount of the transaction price allocated to RPO related to customer contracts that are unsatisfied or partially unsatisfied was $58 billion. Approximately 70 percent of the amount is expected to be recognized as revenue in the subsequent two years, approximately 26 percent in the subsequent three to five years and the balance thereafter.

Revenue Recognized for Performance Obligations Satisfied (or Partially Satisfied) in Prior Periods

For the three months ended March 31, 2022, revenue was reduced by $29 million for performance obligations satisfied (or partially satisfied) in previous periods mainly due to changes in estimates on contracts with cost-to-cost measures of progress.

Reconciliation of Contract Balances

The following table provides information about notes and accounts receivable–trade, contract assets and deferred income balances:

(Dollars in millions)	At March 31, 2022	At December 31, 2021
Notes and accounts receivable ─ trade (net of allowances of $225 in 2022 and $218 in 2021)	$ 5,963	$ 6,754
Contract assets*	517	471
Deferred income (current)	13,526	12,518
Deferred income (noncurrent)	3,423	3,577

* Included within prepaid expenses and other current assets in the Consolidated Balance Sheet.

The amount of revenue recognized during the three months ended March 31, 2022 that was included within the deferred income balance at December 31, 2021 was $4.0 billion and was primarily related to services and software.

The following table provides roll forwards of the notes and accounts receivable–trade allowance for expected credit losses for the three months ended March 31, 2022 and the year ended December 31, 2021:

(Dollars in millions) January 1, 2022	Additions / (Releases)	Write-offs	Foreign currency and other	March 31, 2022
$ 218	$ 23	$ (7)	$ (9)	$ 225

January 1, 2021	Additions / (Releases)	Write-offs	Foreign currency and other	December 31, 2021
$ 260	$ (15)	$ (28)	$ 1	$ 218

The contract assets allowance for expected credit losses was not material in any of the periods presented.

5. Segments:

In January 2022, IBM announced the divestiture of its healthcare data and analytics assets which is expected to close in the second quarter of 2022. Refer to note 6, "Acquisitions & Divestitures," for additional information. The company re-aligned its management structure to manage these assets outside of the Software segment prior to the divestiture. In the first quarter of 2022, the financial results of these assets are presented in Other–divested businesses. This change did not impact IBM's Consolidated Financial Statements.

In the fourth quarter of 2021, immediately prior to the separation of Kyndryl, the company made a number of changes to its organizational structure and management system to align the company's operating model to its platform-centric approach to hybrid cloud and AI. With these changes, the company revised its reportable segments, but did not impact its Consolidated Financial Statements. The below table displays the segment updates in the fourth quarter of 2021.

Previous Segments	Changes[1]	New Segments
Cloud & Cognitive Software	• Revenue categories	Software
Global Business Services	• Revenue categories	Consulting
Global Technology Services	- Separated managed infrastructure services[2] - Technology Support Services - IBM Cloud IaaS - Managed infrastructure services retained JV[3]	N/A
Systems	• Revenue categories + Technology Support Services + IBM Cloud IaaS + Global asset recovery service	Infrastructure
Global Financing	- Global asset recovery service	Financing
Other	+ Managed infrastructure services retained JV[3]	Other

(1) Does not include minor mission moves.

(2) IBM completed the separation of its managed infrastructure services business to Kyndryl on November 3, 2021.

(3) Represents a joint venture relationship that was historically managed by the managed infrastructure services business that was not transferred to Kyndryl as part of the separation.

The following tables reflect the results of continuing operations of the company's segments consistent with the management and measurement system utilized within the company and have been recast for the prior-year periods to reflect the company's segment changes in the first quarter of 2022 and the fourth quarter of 2021 described above. Performance measurement is based on pre-tax income from continuing operations. These results are used by the chief operating decision maker, both in evaluating the performance of, and in allocating resources to, each of the segments.

SEGMENT INFORMATION

(Dollars in millions)	Software	Consulting	Infrastructure	Financing	Total Segments
For the three months ended March 31, 2022:					
Revenue	$ 5,772	$ 4,829	$ 3,219	$ 154	$ 13,973
Pre-tax income from continuing operations	$ 1,134	$ 348	$ 199	$ 84	$ 1,766
Revenue year-to-year change	12.3 %	13.3 %	(2.3)%	(26.2)%	8.3 %
Pre-tax income year-to-year change	72.3 %	25.8 %	(31.7)%	(14.3)%	33.3 %
Pre-tax income margin	19.7 %	7.2 %	6.2 %	54.6 %	12.6 %
For the three months ended March 31, 2021*:					
Revenue	$ 5,138	$ 4,262	$ 3,293	$ 208	$ 12,902
Pre-tax income from continuing operations	$ 658	$ 277	$ 292	$ 98	$ 1,325
Pre-tax income margin	12.8 %	6.5 %	8.9 %	47.0 %	10.3 %

Reconciliations to IBM as Reported:

(Dollars in millions) For the three months ended March 31:	2022	2021*
Revenue:		
Total reportable segments	$ 13,973	$ 12,902
Other – divested businesses	154	197
Other revenue	70	87
Total consolidated revenue	$ 14,197	$ 13,187
Pre-tax income from continuing operations:		
Total reportable segments	$ 1,766	$ 1,325
Amortization of acquired intangible assets	(461)	(447)
Acquisition-related (charges)/income	(7)	(16)
Non-operating retirement-related (costs)/income	(202)	(332)
Kyndryl-related impacts**	(222)	—
Eliminations of internal transactions	(11)	(9)
Other – divested businesses	(52)	(15)
Unallocated corporate amounts and other	(188)	(262)
Total pre-tax income from continuing operations	$ 623	$ 244

* Recast to conform to current year presentation.
** Refer to note 8, "Financial Assets & Liabilities," for additional information.

6. Acquisitions & Divestitures:

Acquisitions

Purchase price consideration for all acquisitions was paid primarily in cash. All acquisitions, except otherwise stated, were for 100 percent of the acquired business and are reported in the Consolidated Statement of Cash Flows, net of acquired cash and cash equivalents.

During the three months ended March 31, 2022, the company completed three acquisitions at an aggregate cost of $798 million. Each acquisition is expected to enhance the company's portfolio of products and services capabilities and further advance IBM's hybrid cloud and AI strategy.

Acquisition	Segment	Description of Acquired Business
Envizi	Software	Data and analytics software provider for environmental performance management
Sentaca	Consulting	Telco consulting services and solutions provider specializing in automation, cloud migration, and future networks for telecommunication providers
Neudesic	Consulting	Application development and cloud computing services company

At March 31, 2022, the remaining cash to be remitted by the company related to certain first quarter 2022 acquisitions was $113 million, most of which is expected to be paid by the first quarter of 2023.

The following table reflects the purchase price related to these acquisitions and the resulting purchase price allocation as of March 31, 2022.

(Dollars in millions)	Amortization Life (in years)	Total Acquisitions
Current assets		$ 52
Property, plant and equipment/noncurrent assets		2
Intangible assets:		
Goodwill	N/A	649
Client relationships	7	140
Completed technology	4-7	39
Trademarks	2-3	5
Total assets acquired		$ 887
Current liabilities		55
Noncurrent liabilities		35
Total liabilities assumed		$ 89
Total purchase price		$ 798

N/A - not applicable

The goodwill generated is primarily attributable to the assembled workforce of the acquired businesses and the increased synergies expected to be achieved from the integration of the acquired businesses into the company's various integrated solutions and services, neither of which qualifies as an amortizable intangible asset.

The overall weighted-average useful life of the identified amortizable intangible assets acquired was 6.7 years. Goodwill of $461 million and $188 million was assigned to the Consulting and Software segments, respectively. It is expected that none of the goodwill will be deductible for tax purposes.

The identified intangible assets will be amortized on a straight-line basis over their useful lives, which approximates the pattern that the assets' economic benefits are expected to be consumed over time.

The valuation of the assets acquired and liabilities assumed is subject to revision. If additional information becomes available, the company may further revise the purchase price allocation as soon as practical, but no later than one year from the acquisition date; however, material changes are not expected.

Divestitures

In first quarter of 2022, the Infrastructure segment completed one divestiture. The financial terms related to this transaction were not material.

Transactions Announced — In January 2022, the company signed a definitive agreement in which Francisco Partners will acquire IBM's healthcare data and analytics assets reported within Other - divested business (Other) for $1,065 million. Refer to note 5, "Segments," for additional information. The assets include Health Insights, MarketScan, Clinical Development, Social Program Management, Micromedex, and imaging software offerings. The transaction is expected to close in phases with the initial closing of the U.S. and Canada expected in the second quarter of 2022, and subsequent closings expected in the second half of 2022, subject to customary regulatory clearances and closing conditions. The company expects to recognize a pre-tax gain on the sale, the final amount of which is not yet determinable.

At March 31, 2022, the business met the criteria for held for sale classification. Held for sale assets of approximately $727 million, which consist primarily of goodwill, intangible assets-net and property, plant, and equipment-net of approximately $484 million, $165 million and $45 million, respectively, and held for sale liabilities of $123 million, which consist primarily of deferred income, were included in the company's Consolidated Balance Sheet at March 31, 2022.

7. Earnings Per Share of Common Stock:

The following table provides the computation of basic and diluted earnings per share of common stock for the three months ended March 31, 2022 and 2021.

(Dollars in millions except per share amounts) For the three months ended March 31:	2022	2021
Number of shares on which basic earnings per share is calculated:		
Weighted-average shares outstanding during period	899,316,026	893,630,916
Add — Incremental shares under stock-based compensation plans	8,375,246	6,622,441
Add — Incremental shares associated with contingently issuable shares	1,534,864	1,492,709
Number of shares on which diluted earnings per share is calculated	909,226,136	901,746,065
Income from continuing operations	$ 662	$ 403
Income from discontinued operations, net of tax	71	552
Net income on which basic earnings per share is calculated	$ 733	$ 955
Income from continuing operations	$ 662	$ 403
Net income applicable to contingently issuable shares	—	—
Income from continuing operations on which diluted earnings per share is calculated	$ 662	$ 403
Income from discontinued operations, net of tax, on which basic and diluted earnings per share is calculated	71	552
Net income on which diluted earnings per share is calculated	$ 733	$ 955
Earnings/(loss) per share of common stock:		
Assuming dilution		
Continuing operations	$ 0.73	$ 0.45
Discontinued operations	0.08	0.61
Total	$ 0.81	$ 1.06
Basic		
Continuing operations	$ 0.74	$ 0.45
Discontinued operations	0.08	0.62
Total	$ 0.82	$ 1.07

Stock options to purchase 1,163,321 shares and 1,510,886 shares were outstanding as of March 31, 2022 and 2021, respectively, but were not included in the computation of diluted earnings per share because the exercise price of the options during the respective period was greater than the average market price of the common shares, and, therefore, the effect would have been antidilutive.

8. Financial Assets & Liabilities:

Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The company classifies certain assets and liabilities based on the following fair value hierarchy:

- Level 1—Quoted prices (unadjusted) in active markets for identical assets or liabilities that can be accessed at the measurement date;

- Level 2—Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly; and

- Level 3—Unobservable inputs for the asset or liability.

When available, the company uses unadjusted quoted market prices in active markets to measure the fair value and classifies such items as Level 1. If quoted market prices are not available, fair value is based upon internally developed models that use current market-based or independently sourced market parameters such as interest rates and currency rates. Items valued using internally generated models are classified according to the lowest level input or value driver that is significant to the valuation.

The determination of fair value considers various factors including interest rate yield curves and time value underlying the financial instruments. For derivatives and debt securities, the company uses a discounted cash flow analysis using discount rates commensurate with the duration of the instrument.

In determining the fair value of financial instruments, the company considers certain market valuation adjustments to the "base valuations" calculated using the methodologies described below for several parameters that market participants would consider in determining fair value:

- Counterparty credit risk adjustments are applied to financial instruments, taking into account the actual credit risk of a counterparty as observed in the credit default swap market to determine the true fair value of such an instrument.

- Credit risk adjustments are applied to reflect the company's own credit risk when valuing all liabilities measured at fair value. The methodology is consistent with that applied in developing counterparty credit risk adjustments, but incorporates the company's own credit risk as observed in the credit default swap market.

The company holds investments primarily in time deposits, certificates of deposit, and U.S. government debt that are designated as available-for-sale. The primary objective of the company's cash and debt investment portfolio is to maintain principal by investing in very liquid and highly rated investment grade securities.

The company's standard practice is to hold all of its debt security investments classified as available-for-sale until maturity. No impairment for credit losses and no material non-credit impairments were recorded for the three months ended March 31, 2022 and 2021, respectively.

Certain non-financial assets such as property, plant and equipment, operating right-of-use assets, land, goodwill and intangible assets are also subject to nonrecurring fair value measurements if they are deemed to be impaired. The impairment models used for non-financial assets depend on the type of asset. There were no material impairments of non-financial assets for the three months ended March 31, 2022 and 2021, respectively.

The following table presents the company's financial assets and financial liabilities that are measured at fair value on a recurring basis at March 31, 2022 and December 31, 2021.

(Dollars in millions)	Fair Value Hierarchy Level	At March 31, 2022 Assets (7)	At March 31, 2022 Liabilities (8)	At December 31, 2021 Assets (7)	At December 31, 2021 Liabilities (8)
Cash equivalents: (1)					
Time deposits and certificates of deposit (2)	2	$ 3,875	$ N/A	$ 1,903	$ N/A
Money market funds	1	2,393	N/A	263	N/A
U.S. government securities (2)	2	—	N/A	599	N/A
Total cash equivalents		$ 6,268	$ N/A	$ 2,766	$ N/A
Equity investments (3)	1	—	N/A	0	N/A
Kyndryl common stock	1	585	N/A	807	N/A
Debt securities-current (2)(4)	2	550	N/A	600	N/A
Debt securities-noncurrent (2)(5)	2,3	36	N/A	37	N/A
Derivatives designated as hedging instruments:					
Interest rate contracts	2	11	6	12	—
Foreign exchange contracts	2	505	179	359	117
Derivatives not designated as hedging instruments:					
Foreign exchange contracts	2	19	30	21	42
Equity contracts (6)	1,2	5	17	6	4
Total		$ 7,980	$ 231	$ 4,608	$ 162

(1) Included within cash and cash equivalents in the Consolidated Balance Sheet.
(2) Available-for-sale debt securities with carrying values that approximate fair value.
(3) Included within investments and sundry assets in the Consolidated Balance Sheet.
(4) U.S. treasury bills that are reported within marketable securities in the Consolidated Balance Sheet.
(5) Includes corporate and government debt securities that are reported within investments and sundry assets in the Consolidated Balance Sheet.
(6) Level 1 includes immaterial amounts related to equity futures contracts.
(7) The gross balances of derivative assets contained within prepaid expenses and other current assets, and investments and sundry assets in the Consolidated Balance Sheet at March 31, 2022 were $511 million and $29 million, respectively, and at December 31, 2021 were $358 million and $40 million, respectively.
(8) The gross balances of derivative liabilities contained within other accrued expenses and liabilities, and other liabilities in the Consolidated Balance Sheet at March 31, 2022 were $117 million and $114 million, respectively, and at December 31, 2021 were $60 million and $103 million, respectively.

N/A - not applicable

Kyndryl Common Stock

On November 3, 2021, IBM completed the separation of Kyndryl and retained 19.9 percent of the shares of Kyndryl common stock with the intent to dispose of the shares within twelve months of the separation. The company accounts for the Kyndryl shares as a fair value investment. The fair value of the shares was $585 million and $807 million at March 31, 2022 and December 31, 2021, respectively, and is included within prepaid expenses and other current assets in the Consolidated Balance Sheet. An unrealized loss of $222 million was recorded in other (income) and expense in the Consolidated Income Statement for the three months ended March 31, 2022. Refer to note 3, "Separation of Kyndryl," for additional information.

Financial Assets and Liabilities Not Measured at Fair Value

Short-Term Receivables and Payables

Notes and other accounts receivable and other investments are financial assets with carrying values that approximate fair value. Accounts payable, other accrued expenses and short-term debt (excluding the current portion of long-term debt and including short-term finance lease liabilities) are financial liabilities with carrying values that approximate fair

value. If measured at fair value in the financial statements, these financial instruments would be classified as Level 3 in the fair value hierarchy, except for short-term debt which would be classified as Level 2.

Loans and Long-Term Receivables

Fair values are based on discounted future cash flows using current interest rates offered for similar loans to clients with similar credit ratings for the same remaining maturities. At March 31, 2022 and December 31, 2021, the difference between the carrying amount and estimated fair value for loans and long-term receivables was immaterial. If measured at fair value in the financial statements, these financial instruments would be classified as Level 3 in the fair value hierarchy.

Long-Term Debt

Fair value of publicly traded long-term debt is based on quoted market prices for the identical liability when traded as an asset in an active market. For other long-term debt (including long-term finance lease liabilities) for which a quoted market price is not available, an expected present value technique that uses rates currently available to the company for debt with similar terms and remaining maturities is used to estimate fair value. The carrying amount of long-term debt was $46,545 million and $44,917 million, and the estimated fair value was $47,896 million and $49,465 million at March 31, 2022 and December 31, 2021, respectively. If measured at fair value in the financial statements, long-term debt (including the current portion) would be classified as Level 2 in the fair value hierarchy.

9. Financing Receivables:

Financing receivables primarily consist of client loan and installment payment receivables (loans) and investment in sales-type and direct financing leases (collectively referred to as client financing receivables) and commercial financing receivables. Loans are provided primarily to clients to finance the purchase of hardware, software and services. Payment terms on these financing arrangements are generally for terms up to seven years. Investment in sales-type and direct financing leases relate principally to the company's Infrastructure products and are for terms ranging generally from two to six years. Commercial financing receivables, which consist of both held-for-investment and held-for-sale receivables, relate primarily to working capital financing for dealers and remarketers of IBM products. Payment terms for working capital financing generally range from 30 to 90 days.

A summary of the components of the company's financing receivables is presented as follows:

	Client Financing Receivables		Commercial Financing Receivables		
(Dollars in millions) At March 31, 2022:	Client Loan and Installment Payment Receivables (Loans)	Investment in Sales-Type and Direct Financing Leases	Held for Investment	Held for Sale*	Total
Financing receivables, gross	$ 8,342	$ 3,213	$ 198	$ 410	$ 12,164
Unearned income	(321)	(211)	—	—	(532)
Unguaranteed residual value	—	325	—	—	325
Amortized cost	$ 8,022	$ 3,328	$ 198	$ 410	$ 11,957
Allowance for credit losses	(114)	(59)	(6)	—	(179)
Total financing receivables, net	$ 7,908	$ 3,269	$ 192	$ 410	$ 11,779
Current portion	$ 5,133	$ 1,434	$ 192	$ 410	$ 7,169
Noncurrent portion	$ 2,775	$ 1,835	$ —	$ —	$ 4,610

* The carrying value of the receivables classified as held for sale approximates fair value.

(Dollars in millions) At December 31, 2021:	Client Financing Receivables: Client Loan and Installment Payment Receivables (Loans)	Client Financing Receivables: Investment in Sales-Type and Direct Financing Leases	Commercial Financing Receivables: Held for Investment	Commercial Financing Receivables: Held for Sale*	Total
Financing receivables, gross	$ 9,303	$ 3,336	$ 450	$ 793	$ 13,881
Unearned income	(353)	(223)	—	—	(576)
Unguaranteed residual value	—	335	—	—	335
Amortized cost	$ 8,949	$ 3,448	$ 450	$ 793	$ 13,640
Allowance for credit losses	(131)	(64)	(6)	—	(201)
Total financing receivables, net	$ 8,818	$ 3,384	$ 444	$ 793	$ 13,439
Current portion	$ 5,371	$ 1,406	$ 444	$ 793	$ 8,014
Noncurrent portion	$ 3,447	$ 1,978	$ —	$ —	$ 5,425

* The carrying value of the receivables classified as held for sale approximates fair value.

The company has a long-standing practice of taking mitigation actions, in certain circumstances, to transfer credit risk to third parties. These actions may include credit insurance, financial guarantees, nonrecourse borrowings, transfers of receivables recorded as true sales in accordance with accounting guidance or sales of equipment under operating lease. Sale of receivables arrangements are also utilized in the normal course of business as part of the company's cash and liquidity management.

Financing receivables pledged as collateral for nonrecourse borrowings were $386 million and $408 million at March 31, 2022 and December 31, 2021, respectively. These borrowings are included in note 12, "Borrowings."

Transfer of Financial Assets

The company enters into agreements with third-party financial institutions to sell certain of its client financing receivables, including both loan and lease receivables, for cash proceeds. Throughout 2021, sales of client financing receivables were utilized as part of the company's cash and liquidity management as well as for credit mitigation. In the first quarter of 2022, sales of client financing receivables were largely focused on credit mitigation. In addition, the company has an existing agreement with a third-party investor to sell IBM short-term commercial financing receivables on a revolving basis. The company has expanded this agreement to other countries and geographies since commencement in the U.S. and Canada in 2020.

The following table presents the total amount of client and commercial financing receivables transferred:

(Dollars in millions) For the three months ended March 31:	2022	2021
Client financing receivables		
Lease receivables	$ 15	$ 342
Loan receivables	2	653
Total client financing receivables transferred	$ 17	$ 995
Commercial financing receivables		
Receivables transferred during the period	$ 1,989	$ 1,167
Receivables uncollected at end of period*	724	724

* Of the total amount of commercial financing receivables sold and derecognized from the Consolidated Balance Sheet, the amounts presented remained uncollected from the business partners as of March 31, 2022 and 2021.

The transfer of these receivables qualified as true sales and therefore reduced financing receivables. The cash proceeds from the sales are included in cash flows from operating activities and the impacts to the Consolidated Income

Statement, including fees and net gain or loss associated with the transfers of these receivables for the three months ending March 31, 2022 and 2021 were not material.

Financing Receivables by Portfolio Segment

The following tables present the amortized cost basis for client financing receivables at March 31, 2022 and December 31, 2021, further segmented by three classes: Americas, Europe/Middle East/Africa (EMEA) and Asia Pacific. The commercial financing receivables portfolio segment is excluded from the tables in the sections below as the receivables are short term in nature and the current estimated risk of loss and resulting impact to the company's financial results are not material.

(Dollars in millions) **At March 31, 2022:**	**Americas**	**EMEA**	**Asia Pacific**	**Total**
Amortized cost	$ 6,116	$ 3,333	$ 1,900	$ 11,349
Allowance for credit losses:				
Beginning balance at January 1, 2022	$ 111	$ 61	$ 23	$ 195
Write-offs	$ (15)	$ 0	$ (2)	$ (17)
Recoveries	1	0	0	1
Additions/(releases)	(5)	(3)	(1)	(8)
Other*	3	(1)	0	2
Ending balance at March 31, 2022	$ 95	$ 56	$ 21	$ 172

(Dollars in millions) **At December 31, 2021:**	**Americas**	**EMEA**	**Asia Pacific**	**Total**
Amortized cost	$ 6,573	$ 3,793	$ 2,031	$ 12,397
Allowance for credit losses:				
Beginning balance at January 1, 2021	$ 141	$ 77	$ 37	$ 255
Write-offs	$ (8)	$ (2)	$ (7)	$ (17)
Recoveries	0	0	1	1
Additions/(releases)	(19)	(11)	(7)	(38)
Other*	(3)	(3)	0	(7)
Ending balance at December 31, 2021	$ 111	$ 61	$ 23	$ 195

* Primarily represents translation adjustments.

When determining the allowances, financing receivables are evaluated either on an individual or a collective basis. For the company's policy on determining allowances for credit losses, refer to note A, "Significant Accounting Policies," in the company's 2021 Annual Report. Any changes to economic models that occurred after the balance sheet date will be reflected in future periods.

Past Due Financing Receivables

The company summarizes information about the amortized cost basis for client financing receivables, including amortized cost aged over 90 days and still accruing, billed invoices aged over 90 days and still accruing, and amortized cost not accruing.

(Dollars in millions) At March 31, 2022:	Total Amortized Cost	Amortized Cost > 90 Days (1)	Amortized Cost > 90 Days and Accruing (1)	Billed Invoices > 90 Days and Accruing	Amortized Cost Not Accruing (2)
Americas	$ 6,116	$ 356	$ 282	$ 8	$ 77
EMEA	3,333	97	7	2	90
Asia Pacific	1,900	45	26	2	19
Total client financing receivables	$ 11,349	$ 498	$ 315	$ 12	$ 186

(Dollars in millions) At December 31, 2021:	Total Amortized Cost	Amortized Cost > 90 Days (1)	Amortized Cost > 90 Days and Accruing (1)	Billed Invoices > 90 Days and Accruing	Amortized Cost Not Accruing (2)
Americas	$ 6,573	$ 188	$ 100	$ 6	$ 90
EMEA	3,793	99	7	2	95
Asia Pacific	2,031	25	5	2	20
Total client financing receivables	$ 12,397	$ 312	$ 112	$ 10	$ 205

(1) At a contract level, which includes total billed and unbilled amounts for financing receivables aged greater than 90 days.

(2) Of the amortized cost not accruing, there was a related allowance of $135 million and $153 million at March 31, 2022 and December 31, 2021, respectively. Financing income recognized on these receivables was immaterial for the three months ended March 31, 2022 and 2021, respectively.

Credit Quality Indicators

The company's credit quality indicators, which are based on rating agency data, publicly available information and information provided by customers, are reviewed periodically based on the relative level of risk. The resulting indicators are a numerical rating system that maps to Moody's Investors Service credit ratings as shown below. The company uses information provided by Moody's, where available, as one of many inputs in its determination of customer credit ratings. The credit quality of the customer is evaluated based on these indicators and is assigned the same risk rating whether the receivable is a lease or a loan.

The following tables present the amortized cost basis for client financing receivables by credit quality indicator at March 31, 2022 and December 31, 2021, respectively. Receivables with a credit quality indicator ranging from Aaa to Baa3 are considered investment grade. All others are considered non-investment grade. The credit quality indicators reflect mitigating credit enhancement actions taken by customers which reduce the risk to IBM.

(Dollars in millions)	Americas		EMEA		Asia Pacific	
At March 31, 2022:	Aaa – Baa3	Ba1 – D	Aaa – Baa3	Ba1 – D	Aaa – Baa3	Ba1 – D
Vintage year:						
2022	$ 512	$ 314	$ 290	$ 178	$ 177	$ 48
2021	2,110	869	914	544	444	175
2020	845	363	404	282	338	78
2019	450	194	206	241	256	41
2018	223	91	104	65	182	52
2017 and prior	81	64	23	82	79	29
Total	$ 4,221	$ 1,896	$ 1,940	$ 1,393	$ 1,477	$ 423

(Dollars in millions)	Americas		EMEA		Asia Pacific	
At December 31, 2021:	Aaa – Baa3	Ba1 – D	Aaa – Baa3	Ba1 – D	Aaa – Baa3	Ba1 – D
Vintage year:						
2021	$ 2,556	$ 1,147	$ 1,181	$ 778	$ 565	$ 226
2020	1,013	392	506	342	381	86
2019	544	236	287	291	297	51
2018	338	117	189	85	211	64
2017	108	50	15	52	74	17
2016 and prior	20	53	21	46	38	20
Total	$ 4,579	$ 1,994	$ 2,198	$ 1,595	$ 1,567	$ 464

Troubled Debt Restructurings

The company did not have any significant troubled debt restructurings during the three months ended March 31, 2022 or for the year ended December 31, 2021.

10. Leases:

Accounting for Leases as a Lessor

The following table presents amounts included in the Consolidated Income Statement related to lessor activity:

(Dollars in millions) For the three months ended March 31:	2022	2021
Lease income — sales-type and direct financing leases:		
Sales-type lease selling price	$ 54	$ 360
Less: Carrying value of underlying assets*	(19)	(57)
Gross profit	$ 36	$ 304
Interest income on lease receivables	45	51
Total sales-type and direct financing lease income	$ 81	$ 354
Lease income — operating leases	30	51
Variable lease income	28	57
Total lease income	$ 138	$ 463

* Excludes unguaranteed residual value.

Sales-type lease revenue was $54 million for the three months ended March 31, 2022 and $360 million for the three months ended March 31, 2021. The decrease was predominantly due to the zSystems product cycle dynamics.

11. Intangible Assets Including Goodwill:

Intangible Assets

The following tables present the company's intangible asset balances by major asset class.

(Dollars in millions)	At March 31, 2022 Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount*
Intangible asset class:			
Capitalized software	$ 1,805	$ (729)	$ 1,076
Client relationships	9,013	(3,017)	5,996
Completed technology	6,092	(2,427)	3,665
Patents/trademarks	2,192	(624)	1,567
Other**	38	(30)	8
Total	$ 19,140	$ (6,828)	$ 12,312

(Dollars in millions)	At December 31, 2021 Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount*
Intangible asset class:			
Capitalized software	$ 1,696	$ (751)	$ 945
Client relationships	9,021	(2,889)	6,132
Completed technology	6,074	(2,259)	3,815
Patents/trademarks	2,196	(586)	1,610
Other**	44	(35)	9
Total	$ 19,031	$ (6,520)	$ 12,511

* Amounts as of March 31, 2022 and December 31, 2021 include a decrease in net intangible asset balances of $60 million and $221 million, respectively, due to foreign currency translation.

** Other intangibles are primarily acquired proprietary and non-proprietary business processes, methodologies and systems.

The net carrying amount of intangible assets decreased $199 million during the first three months of 2022, primarily due to intangible asset amortization, partially offset by additions of acquired intangibles and capitalized software. The aggregate intangible amortization expense was $625 million and $614 million for the quarters ended March 31, 2022 and 2021, respectively. In the first three months of 2022, the company retired $297 million of fully amortized intangible assets, impacting both the gross carrying amount and accumulated amortization by this amount.

The future amortization expense relating to intangible assets currently recorded in the Consolidated Balance Sheet is estimated to be the following at March 31, 2022:

(Dollars in millions)	Capitalized Software	Acquired Intangibles	Total
Remainder of 2022	$ 459	$ 1,377	$ 1,836
2023	404	1,535	1,938
2024	203	1,487	1,690
2025	10	1,470	1,480
2026	0	1,453	1,453
Thereafter	0	3,915	3,915

Goodwill

The changes in the goodwill balances by segment for the three months ended March 31, 2022 and for the year ended December 31, 2021 are as follows:

(Dollars in millions) Segment	Balance 1/1/2022	Goodwill Additions	Purchase Price Adjustments	Divestitures	Foreign Currency Translation and Other Adjustments*	Balance 3/31/2022
Software	$ 43,966	$ 188	$ (27)	$ —	$ (99)	$ 44,027
Consulting	6,797	461	(3)	—	(49)	7,205
Infrastructure	4,396	—	—	(1)	(5)	4,390
Other	484	—	—	—	—	484
Total	$ 55,643	$ 649	$ (31)	$ (1)	$ (153)	$ 56,106

(Dollars in millions) Segment	Balance 1/1/2021	Goodwill Additions	Purchase Price Adjustments	Divestitures	Foreign Currency Translation and Other Adjustments*	Balance 12/31/2021
Software**	$ 42,665	$ 1,836	$ 23	$ (13)	$ (545)	$ 43,966
Consulting	6,145	713	(21)	—	(40)	6,797
Infrastructure	4,436	—	0	—	(39)	4,396
Other**	520	—	—	(37)	1	484
Total	$ 53,765	$ 2,549	$ 2	$ (50)	$ (623)	$ 55,643

* Primarily driven by foreign currency translation.
** Recast to conform to current year presentation due to segment change.

There were no goodwill impairment losses recorded during the first three months of 2022 or full-year 2021 and the company has no accumulated impairment losses. Purchase price adjustments recorded in the first three months of 2022 and full-year 2021 were related to acquisitions that were still subject to the measurement period that ends at the earlier of 12 months from the acquisition date or when information becomes available. Net purchase price adjustments recorded during the first three months of 2022 and 2021 were not material.

12. Borrowings:

Short-Term Debt

(Dollars in millions)	At March 31, 2022	At December 31, 2021
Short-term loans	$ 13	$ 22
Long-term debt ─ current maturities	7,676	6,764
Total	$ 7,690	$ 6,787

The weighted-average interest rate for short-term loans was 4.4 percent and 6.7 percent at March 31, 2022 and December 31, 2021, respectively.

Long-Term Debt

Pre-Swap Borrowing

(Dollars in millions)	Maturities	Balance 3/31/2022	Balance 12/31/2021
U.S. dollar debt (weighted-average interest rate at March 31, 2022):*			
2.7%	2022	$ 4,661	$ 5,673
3.4%	2023	1,563	1,573
3.3%	2024	5,014	5,016
6.9%	2025	607	608
3.3%	2026	4,354	4,356
2.8%	2027	2,871	2,221
6.5%	2028	313	313
3.5%	2029	3,250	3,250
2.0%	2030	1,350	1,350
4.4%	2032	1,100	600
8.0%	2038	83	83
4.5%	2039	2,745	2,745
2.9%	2040	650	650
4.0%	2042	1,107	1,107
7.0%	2045	27	27
4.7%	2046	650	650
4.3%	2049	3,000	3,000
3.0%	2050	750	750
3.4%	2052	650	—
7.1%	2096	316	316
		$ 35,062	$ 34,290
Other currencies (weighted-average interest rate at March 31, 2022, in parentheses):*			
Euro (1.1%)	2023–2040	$ 17,783	$ 15,903
Pound sterling (2.6%)	2022	395	406
Japanese yen (0.3%)	2022–2026	1,198	1,263
Other (13.8%)	2022–2025	384	378
		$ 54,821	$ 52,240
Finance lease obligations (1.9%)	2022–2030	100	99
		$ 54,921	$ 52,339
Less: net unamortized discount		849	839
Less: net unamortized debt issuance costs		142	130
Add: fair value adjustment**		291	311
		$ 54,221	$ 51,681
Less: current maturities		7,676	6,764
Total		$ 46,545	$ 44,917

* Includes notes, debentures, bank loans and secured borrowings.

** The portion of the company's fixed-rate debt obligations that is hedged is reflected in the Consolidated Balance Sheet as an amount equal to the sum of the debt's carrying value and a fair value adjustment representing changes in the fair value of the hedged debt obligations attributable to movements in benchmark interest rates.

The company's indenture governing its debt securities and its various credit facilities each contain significant covenants which obligate the company to promptly pay principal and interest, limit the aggregate amount of secured indebtedness and sale and leaseback transactions to 10 percent of the company's consolidated net tangible assets, and restrict the company's ability to merge or consolidate unless certain conditions are met. The credit facilities also include

a covenant on the company's consolidated net interest expense ratio, which cannot be less than 2.20 to 1.0, as well as a cross default provision with respect to other defaulted indebtedness of at least $500 million.

The company is in compliance with its debt covenants and provides periodic certifications to its lenders. The failure to comply with its debt covenants could constitute an event of default with respect to the debt to which such provisions apply. If certain events of default were to occur, the principal and interest on the debt to which such event of default applied would become immediately due and payable.

In the first quarter of 2022, the company issued $2.3 billion of Euro fixed-rate notes in tranches with maturities ranging from 8 to 12 years and coupons ranging from 0.875 to 1.25 percent and $1.8 billion of U.S. dollar fixed-rate notes with maturities ranging from 5 to 30 years and coupons ranging from 2.20 to 3.43 percent. In the first quarter of 2021, IBM Credit LLC early redeemed all of its outstanding fixed-rate debt in the aggregate amount of $1.75 billion with maturity dates ranging from 2021 to 2023 and deregistered with the U.S. Securities and Exchange Commission. The notes were redeemed at a price equal to 100 percent of the aggregate principal plus a make-whole premium and accrued interest. The company incurred a loss of approximately $22 million upon redemption that was recorded in other (income) and expense in the Consolidated Income Statement.

Pre-swap annual contractual obligations of long-term debt outstanding at March 31, 2022, are as follows:

(Dollars in millions)	Total
Remainder of 2022	$ 5,668
2023	4,807
2024	6,364
2025	3,943
2026	4,700
Thereafter	29,440
Total	$ 54,921

Interest on Debt

(Dollars in millions) For the three months ended March 31:	2022	2021
Cost of financing	$ 82	$ 106
Interest expense	311	280
Interest capitalized	2	2
Total interest paid and accrued	$ 395	$ 388

Lines of Credit

The company has a $2.5 billion Three-Year Credit Agreement and a $7.5 billion Five-Year Credit Agreement with maturity dates of June 21, 2024 and June 22, 2026, respectively. The Credit Agreements permit the company and its subsidiary borrowers to borrow up to $10 billion on a revolving basis.

At March 31, 2022, there were no borrowings by the company, or its subsidiaries, under these credit facilities.

13. Commitments:

The company's extended lines of credit to third-party entities include unused amounts of $1.7 billion at March 31, 2022 and December 31, 2021. A portion of these amounts was available to the company's business partners to support their working capital needs. In addition, the company has committed to provide future financing to its clients in connection with client purchase agreements for $2.9 billion and $3.2 billion at March 31, 2022 and December 31, 2021,

respectively. The company collectively evaluates the allowance for these arrangements using a provision methodology consistent with the portfolio of the commitments. Refer to note A, "Significant Accounting Policies," in the company's 2021 Annual Report for additional information. The allowance for these commitments is recorded in other liabilities in the Consolidated Balance Sheet and was not material at March 31, 2022.

The company has applied the guidance requiring a guarantor to disclose certain types of guarantees, even if the likelihood of requiring the guarantor's performance is remote. The following is a description of arrangements in which the company is the guarantor.

The company is a party to a variety of agreements pursuant to which it may be obligated to indemnify the other party with respect to certain matters. Typically, these obligations arise in the context of contracts entered into by the company, under which the company customarily agrees to hold the party harmless against losses arising from a breach of representations and covenants related to such matters as title to the assets sold, certain intellectual property rights, specified environmental matters, third-party performance of nonfinancial contractual obligations and certain income taxes. In each of these circumstances, payment by the company is conditioned on the other party making a claim pursuant to the procedures specified in the particular contract, the procedures of which typically allow the company to challenge the other party's claims. While indemnification provisions typically do not include a contractual maximum on the company's payment, the company's obligations under these agreements may be limited in terms of time and/or nature of claim, and in some instances, the company may have recourse against third parties for certain payments made by the company.

It is not possible to predict the maximum potential amount of future payments under these or similar agreements due to the conditional nature of the company's obligations and the unique facts and circumstances involved in each particular agreement. Historically, payments made by the company under these agreements have not had a material effect on the company's business, financial condition or results of operations.

In addition, the company guarantees certain loans and financial commitments. The maximum potential future payment under these financial guarantees and the fair value of these guarantees recognized in the Consolidated Balance Sheet at March 31, 2022 and December 31, 2021 was not material.

Changes in the company's warranty liability for standard warranties, which are included in other accrued expenses and liabilities and other liabilities in the Consolidated Balance Sheet, and for extended warranty contracts, which are included in deferred income in the Consolidated Balance Sheet, are presented in the following tables.

Standard Warranty Liability

(Dollars in millions)	2022	2021
Balance at January 1	$ 77	$ 83
Current period accruals	14	16
Accrual adjustments to reflect actual experience	(2)	(4)
Charges incurred	(20)	(23)
Balance at March 31	$ 69	$ 72

Extended Warranty Liability (Deferred Income)

(Dollars in millions)	2022	2021
Balance at January 1	$ 350	$ 425
Revenue deferred for new extended warranty contracts	18	18
Amortization of deferred revenue	(44)	(53)
Other*	(1)	(6)
Balance at March 31	$ 323	$ 383
Current portion	$ 155	$ 199
Noncurrent portion	$ 168	$ 185

* Other primarily consists of foreign currency translation adjustments.

14. Contingencies:

As a company with a substantial employee population and with clients in more than 175 countries, IBM is involved, either as plaintiff or defendant, in a variety of ongoing claims, demands, suits, investigations, tax matters and proceedings that arise from time to time in the ordinary course of its business. The company is a leader in the information technology industry and, as such, has been and will continue to be subject to claims challenging its IP rights and associated products and offerings, including claims of copyright and patent infringement and violations of trade secrets and other IP rights. In addition, the company enforces its own IP against infringement, through license negotiations, lawsuits or otherwise. Further, given the rapidly evolving external landscape of cybersecurity, privacy and data protection laws, regulations and threat actors, the company and its clients have been and will continue to be subject to actions or proceedings in various jurisdictions. Also, as is typical for companies of IBM's scope and scale, the company is party to actions and proceedings in various jurisdictions involving a wide range of labor and employment issues (including matters related to contested employment decisions, country-specific labor and employment laws, and the company's pension, retirement and other benefit plans), as well as actions with respect to contracts, product liability, securities, foreign operations, competition law and environmental matters. These actions may be commenced by a number of different parties, including competitors, clients, current or former employees, government and regulatory agencies, stockholders and representatives of the locations in which the company does business. Some of the actions to which the company is party may involve particularly complex technical issues, and some actions may raise novel questions under the laws of the various jurisdictions in which these matters arise.

The company records a provision with respect to a claim, suit, investigation or proceeding when it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Any recorded liabilities, including any changes to such liabilities for the quarter ended March 31, 2022 were not material to the Consolidated Financial Statements.

In accordance with the relevant accounting guidance, the company provides disclosures of matters for which the likelihood of material loss is at least reasonably possible. In addition, the company also discloses matters based on its consideration of other matters and qualitative factors, including the experience of other companies in the industry, and investor, customer and employee relations considerations.

With respect to certain of the claims, suits, investigations and proceedings discussed herein, the company believes at this time that the likelihood of any material loss is remote, given, for example, the procedural status, court rulings, and/or the strength of the company's defenses in those matters. With respect to the remaining claims, suits, investigations and proceedings discussed in this note, except as specifically discussed herein, the company is unable to provide estimates of reasonably possible losses or range of losses, including losses in excess of amounts accrued, if any, for the following reasons. Claims, suits, investigations and proceedings are inherently uncertain, and it is not possible to predict the ultimate outcome of these matters. It is the company's experience that damage amounts claimed in litigation against it are unreliable and unrelated to possible outcomes, and as such are not meaningful indicators of the company's potential liability. Further, the company is unable to provide such an estimate due to a number of other factors with respect to

these claims, suits, investigations and proceedings, including considerations of the procedural status of the matter in question, the presence of complex or novel legal theories, and/or the ongoing discovery and development of information important to the matters. The company reviews claims, suits, investigations and proceedings at least quarterly, and decisions are made with respect to recording or adjusting provisions and disclosing reasonably possible losses or range of losses (individually or in the aggregate), to reflect the impact and status of settlement discussions, discovery, procedural and substantive rulings, reviews by counsel and other information pertinent to a particular matter.

Whether any losses, damages or remedies finally determined in any claim, suit, investigation or proceeding could reasonably have a material effect on the company's business, financial condition, results of operations or cash flows will depend on a number of variables, including: the timing and amount of such losses or damages; the structure and type of any such remedies; the significance of the impact any such losses, damages or remedies may have in the Consolidated Financial Statements; and the unique facts and circumstances of the particular matter that may give rise to additional factors. While the company will continue to defend itself vigorously, it is possible that the company's business, financial condition, results of operations or cash flows could be affected in any particular period by the resolution of one or more of these matters.

The following is a summary of the more significant legal matters involving the company.

In December 2017, CIS General Insurance Limited (CISGIL) sued IBM UK regarding a contract entered into by IBM UK and CISGIL in 2015 to implement and operate an IT insurance platform. The contract was terminated by IBM UK in July 2017 for non-payment by CISGIL. CISGIL alleges wrongful termination, breach of contract and breach of warranty. In February 2021, the Technology & Construction Court in London rejected the majority of CISGIL's claims and ruled in IBM's favor on its counterclaim. The court's decision required IBM to pay approximately $20 million in damages, plus interest and litigation costs. In April 2022, the Court of Appeal awarded CISGIL additional damages of approximately $89 million, plus interest and litigation costs. IBM intends to seek appeal of the judgment.

On June 8, 2021, IBM sued GlobalFoundries U.S. Inc. (GF) in New York State Supreme Court for claims including fraud and breach of contract relating to a long-term strategic relationship between IBM and GF for researching, developing, and manufacturing advanced semiconductor chips for IBM. GF walked away from its obligations and IBM is now suing to recover amounts paid to GF, and other compensatory and punitive damages, totaling more than $1.5 billion. On September 14, 2021, the court ruled on GF's motion to dismiss. On April 7, 2022, the Appellate Division unanimously reversed the lower court's dismissal of IBM's fraud claim. IBM's claims for breaches of contract, promissory estoppel, and fraud are proceeding.

On April 5, 2022, a putative securities law class action was commenced in the United States District Court for the Southern District of New York alleging that during the period from April 4, 2017 through October 20, 2021, certain strategic imperatives revenues were misclassified. The company, two current IBM senior executives, and two former IBM senior executives are named as defendants. On March 25, 2022, the Board of Directors received a shareholder demand letter making similar allegations and demanding that the company's Board of Directors take action to assert the company's rights. A special committee of independent directors has been formed to investigate the issues raised in the letter.

The company is party to, or otherwise involved in, proceedings brought by U.S. federal or state environmental agencies under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), known as "Superfund," or laws similar to CERCLA. Such statutes require potentially responsible parties to participate in remediation activities regardless of fault or ownership of sites. The company is also conducting environmental investigations, assessments or remediations at or in the vicinity of several current or former operating sites globally pursuant to permits, administrative orders or agreements with country, state or local environmental agencies, and is involved in lawsuits and claims concerning certain current or former operating sites.

The company is also subject to ongoing tax examinations and governmental assessments in various jurisdictions. Along with many other U.S. companies doing business in Brazil, the company is involved in various challenges with

Brazilian tax authorities regarding non-income tax assessments and non-income tax litigation matters. The total potential amount related to all these matters for all applicable years is approximately $450 million. The company believes it will prevail on these matters and that this amount is not a meaningful indicator of liability.

15. Equity Activity:

Reclassifications and Taxes Related to Items of Other Comprehensive Income

(Dollars in millions) For the three months ended March 31, 2022:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss):			
Foreign currency translation adjustments	$ 442	$ (136)	$ 306
Net changes related to available-for-sale securities:			
Unrealized gains/(losses) arising during the period	$ 0	$ 0	$ 0
Reclassification of (gains)/losses to other (income) and expense	—	—	—
Total net changes related to available-for-sale securities	$ 0	$ 0	$ 0
Unrealized gains/(losses) on cash flow hedges:			
Unrealized gains/(losses) arising during the period	$ 60	$ (16)	$ 44
Reclassification of (gains)/losses to:			
Cost of services	(15)	4	(11)
Cost of sales	(12)	4	(9)
Cost of financing	5	(1)	4
SG&A expense	(6)	2	(4)
Other (income) and expense	7	(2)	5
Interest expense	21	(5)	15
Total unrealized gains/(losses) on cash flow hedges	$ 59	$ (15)	$ 44
Retirement-related benefit plans (1):			
Prior service costs/(credits)	$ (5)	$ 5	$ 0
Net (losses)/gains arising during the period	9	(4)	5
Curtailments and settlements	8	(2)	6
Amortization of prior service (credits)/costs	7	(2)	5
Amortization of net (gains)/losses	468	(131)	337
Total retirement-related benefit plans	$ 486	$ (134)	$ 352
Other comprehensive income/(loss)	$ 987	$ (285)	$ 703

(1) These accumulated other comprehensive income (AOCI) components are included in the computation of net periodic pension cost. Refer to note 18, “Retirement-Related Benefits,” for additional information.

Reclassifications and Taxes Related to Items of Other Comprehensive Income

(Dollars in millions) For the three months ended March 31, 2021:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss):			
Foreign currency translation adjustments	$ 549	$ (228)	$ 321
Net changes related to available-for-sale securities:			
Unrealized gains/(losses) arising during the period	$ 0	$ 0	$ 0
Reclassification of (gains)/losses to other (income) and expense	—	—	—
Total net changes related to available-for-sale securities	$ 0	$ 0	$ 0
Unrealized gains/(losses) on cash flow hedges:			
Unrealized gains/(losses) arising during the period	$ 187	$ (47)	$ 140
Reclassification of (gains)/losses to:			
Cost of services	(14)	3	(10)
Cost of sales	22	(6)	16
Cost of financing	6	(2)	4
SG&A expense	15	(4)	11
Other (income) and expense	116	(29)	87
Interest expense	16	(4)	12
Total unrealized gains/(losses) on cash flow hedges	$ 347	$ (88)	$ 259
Retirement-related benefit plans (1):			
Prior service costs/(credits)	$ 0	$ 0	$ 0
Net (losses)/gains arising during the period	20	(6)	14
Curtailments and settlements	17	(5)	12
Amortization of prior service (credits)/costs	3	0	3
Amortization of net (gains)/losses	648	(177)	471
Total retirement-related benefit plans	$ 689	$ (189)	$ 500
Other comprehensive income/(loss)	$ 1,586	$ (505)	$ 1,080

(1) These AOCI components are included in the computation of net periodic pension cost. Refer to note 18, "Retirement-Related Benefits," for additional information.

Accumulated Other Comprehensive Income/(Loss) (net of tax)

(Dollars in millions)	Net Unrealized Gains/(Losses) on Cash Flow Hedges	Foreign Currency Translation Adjustments*	Net Change Retirement-Related Benefit Plans	Net Unrealized Gains/(Losses) on Available-For-Sale Securities	Accumulated Other Comprehensive Income/(Loss)
January 1, 2022	$ (18)	$ (3,362)	$ (19,854)	$ (1)	$ (23,234)
Other comprehensive income before reclassifications	44	306	5	0	355
Amount reclassified from accumulated other comprehensive income	0	—	348	—	348
Total change for the period	$ 44	$ 306	$ 352	$ 0	$ 703
March 31, 2022	$ 26	$ (3,056)	$ (19,502)	$ (1)	$ (22,532)

(Dollars in millions)	Net Unrealized Gains/(Losses) on Cash Flow Hedges	Foreign Currency Translation Adjustments*	Net Change Retirement-Related Benefit Plans	Net Unrealized Gains/(Losses) on Available-For-Sale Securities	Accumulated Other Comprehensive Income/(Loss)
January 1, 2021	$ (456)	$ (4,665)	$ (24,216)	$ 0	$ (29,337)
Other comprehensive income before reclassifications	140	321	14	0	475
Amount reclassified from accumulated other comprehensive income	119	—	486	—	606
Total change for the period	$ 259	$ 321	$ 500	$ 0	$ 1,080
March 31, 2021	$ (197)	$ (4,343)	$ (23,716)	$ (1)	$ (28,257)

* Foreign currency translation adjustments are presented gross except for any associated hedges which are presented net of tax.

16. Derivative Financial Instruments:

The company operates in multiple functional currencies and is a significant lender and borrower in the global markets. In the normal course of business, the company is exposed to the impact of interest rate changes and foreign currency fluctuations, and to a lesser extent equity and commodity price changes and client credit risk. The company limits these risks by following established risk management policies and procedures, including the use of derivatives, and, where cost effective, financing with debt in the currencies in which assets are denominated. For interest rate exposures, derivatives are used to better align rate movements between the interest rates associated with the company's lease and other financial assets and the interest rates associated with its financing debt. Derivatives are also used to manage the related cost of debt. For foreign currency exposures, derivatives are used to better manage the cash flow volatility arising from foreign exchange rate fluctuations.

In the Consolidated Balance Sheet, the company does not offset derivative assets against liabilities in master netting arrangements nor does it offset receivables or payables recognized upon payment or receipt of cash collateral against the fair values of the related derivative instruments. At March 31, 2022 and December 31, 2021, the amount recognized in other accounts receivable for the right to reclaim cash collateral was $3 million and $2 million, respectively. At March 31, 2022 and December 31, 2021, the amount recognized in accounts payable for the obligation to return cash collateral was $25 million and $38 million, respectively. The company restricts the use of cash collateral received to rehypothecation, and therefore reports it in restricted cash in the Consolidated Balance Sheet. At March 31, 2022 and December 31, 2021, the amount rehypothecated was $3 million and $2 million, respectively. Additionally, if derivative exposures covered by a qualifying master netting agreement had been netted in the Consolidated Balance Sheet at March 31, 2022 and December 31, 2021, the total derivative asset and liability positions each would have been reduced by $95 million and $60 million, respectively.

In its hedging programs, the company may use forward contracts, futures contracts, interest-rate swaps, cross-currency swaps, equity swaps, and options depending upon the underlying exposure. The company is not a party to leveraged derivative instruments.

A brief description of the major hedging programs, categorized by underlying risk, follows.

Interest Rate Risk

Fixed and Variable Rate Borrowings

The company issues debt in the global capital markets to fund its operations and financing business. Access to cost-effective financing can result in interest rate mismatches with the underlying assets. To manage these mismatches and to reduce overall interest cost, the company may use interest-rate swaps to convert specific fixed-rate debt issuances into variable-rate debt (i.e., fair value hedges) and to convert specific variable-rate debt issuances into fixed-rate debt (i.e., cash flow hedges). At March 31, 2022 and December 31, 2021, the total notional amount of the company's interest-rate swaps was $2.4 billion and $0.4 billion, respectively. The weighted-average remaining maturity of these instruments at March 31, 2022 and December 31, 2021 was approximately 5.0 years and 1.2 years, respectively. These interest-rate contracts were accounted for as fair value hedges. The company did not have any cash flow hedges relating to this program outstanding at March 31, 2022 and December 31, 2021.

Forecasted Debt Issuance

The company is exposed to interest rate volatility on future debt issuances. To manage this risk, the company may use instruments such as forward starting interest-rate swaps to lock in the rate on the interest payments related to the forecasted debt issuances. There were no instruments outstanding at March 31, 2022 and December 31, 2021.

In connection with cash flow hedges of forecasted interest payments related to the company's borrowings, the company recorded net losses (before taxes) of $152 million and $157 million at March 31, 2022 and December 31, 2021, respectively, in AOCI. The company estimates that $18 million of the deferred net losses (before taxes) on derivatives in AOCI at March 31, 2022 will be reclassified to net income within the next 12 months, providing an offsetting economic impact against the underlying interest payments.

Foreign Exchange Risk

Long-Term Investments in Foreign Subsidiaries (Net Investment)

A large portion of the company's foreign currency denominated debt portfolio is designated as a hedge of net investment in foreign subsidiaries to reduce the volatility in stockholders' equity caused by changes in foreign currency exchange rates in the functional currency of major foreign subsidiaries with respect to the U.S. dollar. At March 31, 2022 and December 31, 2021, the carrying value of debt designated as hedging instruments was $15.0 billion and $14.1 billion, respectively. The company also uses cross-currency swaps and foreign exchange forward contracts for this risk management purpose. At March 31, 2022 and December 31, 2021, the total notional amount of derivative instruments designated as net investment hedges was $5.7 billion and $6.8 billion, respectively. At both March 31, 2022 and December 31, 2021, the weighted-average remaining maturity of these instruments was approximately 0.1 years.

Anticipated Royalties and Cost Transactions

The company's operations generate significant nonfunctional currency, third-party vendor payments and intercompany payments for royalties and goods and services among the company's non-U.S. subsidiaries and with the company. In anticipation of these foreign currency cash flows and in view of the volatility of the currency markets, the company selectively employs foreign exchange forward contracts to manage its currency risk. These forward contracts are accounted for as cash flow hedges. At March 31, 2022, the maximum remaining length of time over which the

company hedged its exposure is approximately two years. At March 31, 2022 and December 31, 2021, the total notional amount of forward contracts designated as cash flow hedges of forecasted royalty and cost transactions was $7.9 billion and $7.2 billion, respectively. At both March 31, 2022 and December 31, 2021, the weighted-average remaining maturity of these instruments was approximately 0.6 years.

At March 31, 2022 and December 31, 2021, in connection with cash flow hedges of anticipated royalties and cost transactions, the company recorded net gains (before taxes) of $338 million and $315 million, respectively, in AOCI. The company estimates that $263 million of deferred net gains (before taxes) on derivatives in AOCI at March 31, 2022 will be reclassified to net income within the next 12 months, providing an offsetting economic impact against the underlying anticipated transactions.

Foreign Currency Denominated Borrowings

The company is exposed to exchange rate volatility on foreign currency denominated debt. To manage this risk, the company employs cross-currency swaps to convert fixed-rate foreign currency denominated debt to fixed-rate debt denominated in the functional currency of the borrowing entity. These swaps are accounted for as cash flow hedges. At March 31, 2022, the maximum length of time remaining over which the company hedged its exposure is approximately six years. At March 31, 2022 and December 31, 2021, the total notional amount of cross-currency swaps designated as cash flow hedges of foreign currency denominated debt was $3.0 billion and $2.0 billion, respectively.

At March 31, 2022 and December 31, 2021, in connection with cash flow hedges of foreign currency denominated borrowings, the company recorded net losses (before taxes) of $141 million and $174 million, respectively, in AOCI. The company estimates that $25 million of deferred net gains (before taxes) on derivatives in AOCI at March 31, 2022 will be reclassified to net income within the next 12 months, providing an offsetting economic impact against the underlying exposure.

Subsidiary Cash and Foreign Currency Asset/Liability Management

The company uses its Global Treasury Centers to manage the cash of its subsidiaries. These centers principally use currency swaps to convert cash flows in a cost-effective manner. In addition, the company uses foreign exchange forward contracts to economically hedge, on a net basis, the foreign currency exposure of a portion of the company's nonfunctional currency assets and liabilities. The terms of these forward and swap contracts are generally less than one year. The changes in the fair values of these contracts and of the underlying hedged exposures are generally offsetting and are recorded in other (income) and expense in the Consolidated Income Statement. At March 31, 2022 and December 31, 2021, the total notional amount of derivative instruments in economic hedges of foreign currency exposure was $5.9 billion and $6.8 billion, respectively.

Equity Risk Management

The company is exposed to market price changes in certain broad market indices and in the company's own stock primarily related to certain obligations to employees. Changes in the overall value of these employee compensation obligations are recorded in SG&A expense in the Consolidated Income Statement. Although not designated as accounting hedges, the company utilizes derivatives, including equity swaps and futures, to economically hedge the exposures related to its employee compensation obligations. The derivatives are linked to the total return on certain broad market indices or the total return on the company's common stock, and are recorded at fair value with gains or losses also reported in SG&A expense in the Consolidated Income Statement. At March 31, 2022 and December 31, 2021, the total notional amount of derivative instruments in economic hedges of these compensation obligations was $1.3 billion and $1.4 billion, respectively.

Cumulative Basis Adjustments for Fair Value Hedges

At March 31, 2022 and December 31, 2021, the following amounts were recorded in the Consolidated Balance Sheet related to cumulative basis adjustments for fair value hedges:

(Dollars in millions)	March 31, 2022	December 31, 2021
Short-term debt:		
Carrying amount of the hedged item	$ (225)	$ (227)
Cumulative hedging adjustments included in the carrying amount — assets/(liabilities)	0	(2)
Long-term debt:		
Carrying amount of the hedged item	$ (2,480)	$ (508)
Cumulative hedging adjustments included in the carrying amount — assets/(liabilities)*	(290)	(309)

* Includes ($289) million and ($302) million of hedging adjustments on discontinued hedging relationships at March 31, 2022 and December 31, 2021, respectively.

The Effect of Derivative Instruments in the Consolidated Income Statement

The total amounts of income and expense line items presented in the Consolidated Income Statement in which the effects of fair value hedges, cash flow hedges, net investment hedges and derivatives not designated as hedging instruments are recorded and the total effect of hedge activity on these income and expense line items are as follows:

(Dollars in millions)	Total		Gains/(Losses) of Total Hedge Activity	
For the three months ended March 31:	2022	2021	2022	2021
Cost of services	$ 5,349	$ 4,644	$ 15	$ 14
Cost of sales	1,415	1,379 *	12	(22)
Cost of financing	98	137 *	(2)	2
SG&A expense	4,597	4,688	(70)	34
Other (income) and expense	246	346	(102)	(160)
Interest expense	311	280	(6)	5

* Reclassified to conform to current year presentation.

(Dollars in millions) For the three months ended March 31:	Consolidated Income Statement Line Item	Gain (Loss) Recognized in Consolidated Income Statement: Recognized on Derivatives 2022	Recognized on Derivatives 2021	Attributable to Risk Being Hedged (2) 2022	Attributable to Risk Being Hedged (2) 2021
Derivative instruments in fair value hedges (1):					
Interest rate contracts	Cost of financing	$ (1)	$ (1)	$ 4	$ 7
	Interest expense	(4)	(1)	16	18
Derivative instruments not designated as hedging instruments:					
Foreign exchange contracts	Other (income) and expense	(95)	(44)	N/A	N/A
Equity contracts	SG&A expense	(76)	49	N/A	N/A
Total		$ (176)	$ 3	$ 20	$ 25

(Dollars in millions) For the three months ended March 31:	Gain (Loss) Recognized in Consolidated Income Statement and Other Comprehensive Income: Recognized in OCI 2022	Recognized in OCI 2021	Consolidated Income Statement Line Item	Reclassified from AOCI 2022	Reclassified from AOCI 2021	Amounts Excluded from Effectiveness Testing (3) 2022	Amounts Excluded from Effectiveness Testing (3) 2021
Derivative instruments in cash flow hedges:							
Interest rate contracts	$ —	$ —	Cost of financing	$ (1)	$ (1)	$ —	$ —
			Interest expense	(3)	(3)	—	—
Foreign exchange contracts	60	187	Cost of services	15	14	—	—
			Cost of sales	12	(22)	—	—
			Cost of financing	(5)	(5)	—	—
			SG&A expense	6	(15)	—	—
			Other (income) and expense	(7)	(116)	—	—
			Interest expense	(17)	(13)	—	—
Instruments in net investment hedges (4):							
Foreign exchange contracts	541	907	Cost of financing	—	—	1	2
			Interest expense	—	—	2	4
Total	$ 601	$ 1,094		$ 1	$ (160)	$ 3	$ 6

(1) The amount includes changes in clean fair values of the derivative instruments in fair value hedging relationships and the periodic accrual for coupon payments required under these derivative contracts.
(2) The amount includes basis adjustments to the carrying value of the hedged item recorded during the period and amortization of basis adjustments recorded on de-designated hedging relationships during the period.
(3) The company's policy is to recognize all fair value changes in amounts excluded from effectiveness testing in net income each period.
(4) Instruments in net investment hedges include derivative and non-derivative instruments with the amounts recognized in OCI providing an offset to the translation of foreign subsidiaries.

N/A - not applicable

For the three months ending March 31, 2022 and 2021, there were no material gains or losses excluded from the assessment of hedge effectiveness (for fair value or cash flow hedges), or associated with an underlying exposure that did not or was not expected to occur (for cash flow hedges); nor are there any anticipated in the normal course of business.

17. Stock-Based Compensation:

Stock-based compensation cost is measured at grant date, based on the fair value of the award, and is recognized over the employee requisite service period. The following table presents total stock-based compensation cost included in income from continuing operations.

(Dollars in millions) For the three months ended March 31:	2022	2021
Cost	$ 40	$ 34
Selling, general and administrative	136	115
Research, development and engineering	57	49
Pre-tax stock-based compensation cost	$ 234	$ 198
Income tax benefits	(57)	(48)
Total net stock-based compensation cost	$ 177	$ 149

Pre-tax stock-based compensation cost for the three months ended March 31, 2022 increased $36 million compared to the corresponding period in the prior year, including increases in stock options ($5 million), performance share units ($3 million) and restricted stock units ($28 million). The increases primarily relate to a change in the timing of the company's executive grant cycle in 2022.

Total unrecognized compensation cost related to non-vested awards at March 31, 2022 was $1.5 billion and is expected to be recognized over a weighted-average period of approximately 2.6 years.

Capitalized stock-based compensation cost was not material at March 31, 2022 and 2021.

Effective April 1, 2022, the company increased the discount for eligible participants under its Employees Stock Purchase Plan (ESPP) from 5 percent to 15 percent off the average market price on the date of purchase. With this change, the ESPP is considered compensatory under the accounting requirements for stock-based compensation.

18. Retirement-Related Benefits:

The company offers defined benefit (DB) pension plans, defined contribution pension plans, as well as nonpension postretirement plans primarily consisting of retiree medical benefits. The following tables provide the pre-tax cost for all retirement-related plans.

(Dollars in millions) For the three months ended March 31:	2022	2021	Yr. to Yr. Percent Change
Retirement-related plans — cost:			
Defined benefit and contribution pension plans — cost	$ 478	$ 619	(22.8)%
Nonpension postretirement plans — cost	33	44	(25.0)
Total	$ 510	$ 663	(23.0)%

The following table provides the components of the cost/(income) for the company's pension plans.

Cost/(Income) of Pension Plans

(Dollars in millions)	U.S. Plans		Non-U.S. Plans	
For the three months ended March 31:	2022	2021	2022	2021
Service cost	$ —	$ —	$ 64	$ 65
Interest cost (1)	302	277	139	108
Expected return on plan assets (1)	(475)	(451)	(274)	(279)
Amortization of prior service costs/(credits) (1)	2	4	4	(2)
Recognized actuarial losses (1)	179	249	278	356
Curtailments and settlements (1)	—	—	8	17
Multi-employer plans	—	—	4	6
Other costs/(credits) (1)	—	—	9	11
Total net periodic pension (income)/cost of defined benefit plans	$ 8	$ 80	$ 231	$ 283
Cost of defined contribution plans	141	151	98	105
Total defined benefit and contribution pension plans cost recognized in the Consolidated Income Statement	$ 149	$ 231	$ 328	$ 388

(1) These components of net periodic pension cost are included in other (income) and expense in the Consolidated Income Statement.

The following table provides the components of the cost for the company's nonpension postretirement plans.

Cost of Nonpension Postretirement Plans

(Dollars in millions)	U.S. Plan		Non-U.S. Plans	
For the three months ended March 31:	2022	2021	2022	2021
Service cost	$ 1	$ 2	$ 1	$ 1
Interest cost (1)	18	16	9	8
Expected return on plan assets (1)	—	—	0	(1)
Amortization of prior service costs/(credits) (1)	1	1	0	0
Recognized actuarial losses (1)	2	13	1	4
Curtailments and settlements (1)	—	—	—	—
Total nonpension postretirement plans cost recognized in the Consolidated Income Statement	$ 23	$ 32	$ 10	$ 12

(1) These components of net periodic pension cost are included in other (income) and expense in the Consolidated Income Statement.

The company does not anticipate any significant changes to the expected plan contributions in 2022 from the amounts disclosed in the 2021 Annual Report.

The table below includes contributions to the following plans:

(Dollars in millions) For the three months ended March 31:	Plan Contributions 2022	2021
U.S. and non-U.S. nonpension postretirement benefit plans	$ 120	$ 106
Non-U.S. DB and multi-employer plans*	35	64
Total plan contributions	$ 154	$ 170

* Amounts reported net of refunds.

During the three months ended March 31, 2022 and 2021, the company contributed $105 million and $150 million of U.S Treasury Securities, respectively, to the non-U.S. DB plans and nonpension postretirement benefit plans. Additionally, during the three months ended March 31, 2022 and 2021, the company contributed $156 million and $129 million of U.S. Treasury Securities, respectively, to the Active Medical Trust. Contributions made with U.S. Treasury securities are considered a non-cash transaction.

19. Subsequent Events:

On April 26, 2022, the company announced that the Board of Directors approved an increase in the quarterly dividend to $1.65 per common share. The dividend is payable June 10, 2022 to shareholders of record on May 10, 2022.

Item 2.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF RESULTS OF OPERATIONS AND FINANCIAL CONDITION FOR THE THREE MONTHS ENDED MARCH 31, 2022

Snapshot

Financial Results Summary — Three Months Ended March 31:

(Dollars and shares in millions except per share amounts) For the three months ended March 31:	2022	2021	Yr. to Yr. Percent/ Margin Change
Revenue	$ 14,197	$ 13,187	7.7 %*
Gross profit margin	51.7 %	53.3 %	(1.6)pts.
Total expense and other (income)	$ 6,712	$ 6,784	(1.1)%
Income from continuing operations before income taxes	$ 623	$ 244	156.0 %
Provision for/(benefit from) income taxes from continuing operations	$ (39)	$ (160)	(75.5)%
Income from continuing operations	$ 662	$ 403	64.3 %
Income from continuing operations margin	4.7 %	3.1 %	1.6 pts.
Income from discontinued operations, net of tax	$ 71	$ 552	(87.2)%
Net income	$ 733	$ 955	(23.3)%
Earnings per share from continuing operations - assuming dilution	$ 0.73	$ 0.45	62.2 %
Consolidated earnings per share - assuming dilution	$ 0.81	$ 1.06	(23.6)%
Weighted-average shares outstanding - assuming dilution	909.2	901.7	0.8 %
	At 3/31/2022	At 12/31/2021	
Assets	$ 133,275	$ 132,001	1.0 %
Liabilities	$ 114,162	$ 113,005	1.0 %
Equity	$ 19,112	$ 18,996	0.6 %

* 10.9 percent adjusted for currency.

Organization of Information:

On November 3, 2021, the company completed the separation of its managed infrastructure services unit into a new public company with the distribution of 80.1 percent of the outstanding common stock of Kyndryl Holdings, Inc. (Kyndryl) to IBM stockholders on a pro rata basis. To effect the separation, IBM stockholders received one share of Kyndryl common stock for every five shares of IBM common stock held at the close of business on October 25, 2021, the record date for the distribution. The company retained 19.9 percent of the shares of Kyndryl common stock immediately following the separation with the intent to dispose of such shares within twelve months after the distribution. The company accounts for the retained Kyndryl common stock as a fair value investment included within prepaid expenses and other current assets in the Consolidated Balance Sheet with subsequent fair value changes included in other (income) and expense in the Consolidated Income Statement.

The accounting requirements for reporting the separation of Kyndryl as a discontinued operation were met when the separation was completed. Accordingly, the historical results of Kyndryl are presented as discontinued operations and, as such, have been excluded from continuing operations and segment results for all periods presented. Consolidated diluted earnings per share includes the results of discontinued operations. Refer to note 3, "Separation of Kyndryl," for additional information.

In the first quarter of 2022, the company realigned its management structure to reflect the planned divestiture of its healthcare data and analytics assets. This change impacted the company's Software segment and Other–divested businesses category. In the fourth quarter of 2021, immediately prior to the separation of Kyndryl, the company made a

number of changes to its organizational structure and management system. These changes impacted the company's reportable segments but did not impact the Consolidated Financial Statements. Refer to note 5, "Segments," for additional information on the company's reportable segments. The segments are reported on a comparable basis for all periods.

To provide useful decision-making information for management and shareholders, the company defines and measures hybrid cloud revenue as end-to-end cloud capabilities within hybrid cloud environments, which includes technology (software and hardware), services and solutions to enable clients to implement cloud solutions across public, private and multi-clouds. The definition of hybrid cloud revenue is consistent with the prior methodology for cloud revenue historically presented. This spans across IBM's Consulting, Software and Infrastructure segments. Examples include (but are not limited to) Red Hat Enterprise Linux (RHEL), Red Hat OpenShift, Cloud Paks, as-a-service offerings, service engagements related to cloud deployment of technology and applications, and infrastructure used in cloud deployments.

Currency:

The references to "adjusted for currency" or "at constant currency" in the Management Discussion do not include operational impacts that could result from fluctuations in foreign currency rates. When we refer to growth rates at constant currency or adjust such growth rates for currency, it is done so that certain financial results can be viewed without the impact of fluctuations in foreign currency exchange rates, thereby facilitating period-to-period comparisons of its business performance. Financial results adjusted for currency are calculated by translating current period activity in local currency using the comparable prior-year period's currency conversion rate. This approach is used for countries where the functional currency is the local currency. Generally, when the dollar either strengthens or weakens against other currencies, the growth at constant currency rates or adjusting for currency will be higher or lower than growth reported at actual exchange rates. Refer to "Currency Rate Fluctuations" for additional information.

Operating (non-GAAP) Earnings:

In an effort to provide better transparency into the operational results of the business, supplementally, management separates business results into operating and non-operating categories. Operating earnings from continuing operations is a non-GAAP measure that excludes the effects of certain acquisition-related charges, intangible asset amortization, expense resulting from basis differences on equity method investments, retirement-related costs, certain impacts from the Kyndryl separation and their related tax impacts. Due to the unique, non-recurring nature of the enactment of the U.S. Tax Cuts and Jobs Act (U.S. tax reform), management characterizes the one-time provisional charge recorded in the fourth quarter of 2017 and adjustments to that charge as non-operating. Adjustments include true-ups, accounting elections and any changes to regulations, laws, audit adjustments, etc. that affect the recorded one-time charge. Management also characterizes direct and incremental charges incurred related to the Kyndryl separation as non-operating given their unique and non-recurring nature. These charges primarily relate to any unrealized gains or losses on Kyndryl common stock which are recorded in other (income) and expense in the Consolidated Income Statement. The unrealized gains or losses reflect fair value changes in the shares that were retained by the company immediately following the separation, with the intent to dispose of such shares within twelve months after the distribution. For acquisitions, operating (non-GAAP) earnings exclude the amortization of purchased intangible assets and acquisition-related charges such as in-process research and development, transaction costs, applicable retention, restructuring and related expenses, tax charges related to acquisition integration and pre-closing charges, such as financing costs. These charges are excluded as they may be inconsistent in amount and timing from period to period and are significantly impacted by the size, type and frequency of the company's acquisitions. All other spending for acquired companies is included in both earnings from continuing operations and in operating (non-GAAP) earnings. Throughout the Management Discussion, the impact of acquisitions over the prior 12 month period may be a driver of higher expense year to year. For retirement-related costs, management characterizes certain items as operating and others as non-operating, consistent with GAAP. We include defined benefit plan and nonpension postretirement benefit plan service costs, multi-employer plan costs and the cost of defined contribution plans in operating earnings. Non-operating retirement-related costs include defined benefit plan and nonpension postretirement benefit plan amortization of prior

service costs, interest cost, expected return on plan assets, amortized actuarial gains/losses, the impacts of any plan curtailments/settlements and pension insolvency costs and other costs. Non-operating retirement-related costs are primarily related to changes in pension plan assets and liabilities which are tied to financial market performance, and the company considers these costs to be outside of the operational performance of the business.

Overall, management believes that supplementally providing investors with a view of operating earnings as described above provides increased transparency and clarity into both the operational results of the business and the performance of the company's pension plans; improves visibility to management decisions and their impacts on operational performance; enables better comparison to peer companies; and allows the company to provide a long-term strategic view of the business going forward. In addition, these non-GAAP measures provide a perspective consistent with areas of interest we routinely receive from investors and analysts. Our reportable segment financial results reflect pre-tax operating earnings from continuing operations, consistent with our management and measurement system.

The following table provides the company's operating (non-GAAP) earnings for the first quarter of 2022 and 2021.

(Dollars in millions except per share amounts) For the three months ended March 31:	2022	2021	Yr. to Yr. Percent Change
Net income as reported	$ 733	$ 955	(23.3)%
Income from discontinued operations, net of tax	71	552	(87.2)
Income from continuing operations	$ 662	$ 403	64.3 %
Non-operating adjustments (net of tax):			
Acquisition-related charges	$ 359	$ 330	8.5 %
Non-operating retirement-related costs/(income)	144	299	(51.8)
U.S. tax reform impacts	(116)	(19)	nm
Kyndryl-related impacts	222	—	nm
Operating (non-GAAP) earnings*	$ 1,271	$ 1,013	25.5 %
Diluted operating (non-GAAP) earnings per share*	$ 1.40	$ 1.12	25.0 %

* Refer to page 74 for a more detailed reconciliation of net income to operating earnings.
nm - not meaningful

Macroeconomic Environment:

The geopolitical situation in Eastern Europe intensified in February 2022, with Russia's invasion of Ukraine. The safety and security of our employees and their families in the impacted regions remains our primary focus. Since February 2022, we have been providing our employees with relocation assistance, financial support and other forms of direct engagement. IBM employees from around the world have mobilized and are participating in multiple volunteer initiatives, showcasing the best of IBM values and culture.

The Russian war in Ukraine resulted in the U.S., UK, and the European Union member governments, among others, placing economic sanctions on numerous Russian entities, specific Russian-controlled entities, as well as Belarus. On March 7, 2022, IBM announced the suspension of business activities in Russia. For the period ended March 31, 2022, we assessed certain accounting-related matters that generally require consideration of current information reasonably available to us and forecasted financial data in the context of unknown future impacts to IBM as a result of the suspension of this business. These assessments did not result in any material impacts to our consolidated financial results as of and for the quarter ended March 31, 2022. We will continue to assess these matters in future periods. The long-term impacts of the Russian war in Ukraine remain uncertain; however, we do not expect a significant impact on the company's future results of operations or financial position. For full year 2021, Russia, Ukraine and Belarus made up less than one percent of the company's full year revenue. While the revenue impact is not expected to be material to total consolidated IBM revenue for the full year 2022, the business in Russia has historically been high margin and therefore, would result in a headwind to our profit and cash flows.

In the third year of the COVID-19 pandemic, our priority continues to be the health of IBM employees, our clients, business partners and community. The pandemic has reinforced the need for clients to modernize their businesses to succeed in this new normal, with hybrid cloud and AI at the core of their digital transformations. The spending environment continues to improve, and we remain focused on providing the technology and consulting services that our clients need to accelerate their digital organizations and emerge from the pandemic even stronger.

Financial Performance Summary — Three Months Ended March 31:

In the first quarter of 2022, we reported $14.2 billion in revenue, income from continuing operations of $0.7 billion and operating (non-GAAP) earnings of $1.3 billion. Diluted earnings per share from continuing operations was $0.73 as reported and $1.40 on an operating (non-GAAP) basis. On a consolidated basis, we generated $3.2 billion in cash from operations and $1.2 billion in free cash flow and delivered shareholder returns of $1.5 billion in dividends. These results reflect progress in our key growth areas as we continue to see a strong demand environment for both our technology and consulting. We continued to increase investments in innovation, our ecosystem and talent and our balance sheet provides us with the flexibility to support our business needs.

Total revenue grew 7.7 percent as reported and 11 percent adjusted for currency compared to the prior-year period. This includes incremental sales to Kyndryl which contributed over 5 points to the revenue growth. Software delivered strong revenue growth of 12.3 percent as reported and 15 percent adjusted for currency, including over 8 points of growth from incremental sales to Kyndryl. Hybrid Platform & Solutions increased 7.4 percent as reported and 10 percent adjusted for currency, with incremental sales to Kyndryl contributing approximately 1.5 points of this growth. Revenue growth was led by strong double-digit growth in Red Hat. Transaction Processing grew 26.5 percent as reported and 31 percent adjusted for currency, including approximately 28 points of growth from incremental Kyndryl sales. Consulting revenue increased 13.3 percent as reported and 17 percent adjusted for currency, with a strong demand profile and growth across all three business areas. Infrastructure revenue decreased 2.3 percent year to year as reported and was flat adjusted for currency, with the overall decline in revenue reflecting our product cycle dynamics. This performance also includes over 8 points of growth from incremental sales to Kyndryl. Across the segments, total hybrid cloud revenue of $5.0 billion in the first quarter of 2022 grew 14 percent as reported and 17 percent adjusted for currency.

From a geographic perspective, Americas revenue grew 8.9 percent year to year as reported (9 percent adjusted for currency). Europe/Middle East/Africa (EMEA) increased 7.7 percent (14 percent adjusted for currency). Asia Pacific grew 4.6 percent (11 percent adjusted for currency).

Gross margin of 51.7 percent decreased 1.6 points year to year, however, gross profit dollars grew compared to the prior-year period. Overall, gross margin was impacted by the significant investments we are making to drive our hybrid cloud and AI strategy and due to mix from our Infrastructure product cycles. These impacts were partially offset by improvement in the Software gross margin. Operating (non-GAAP) gross margin of 52.9 percent decreased 1.7 points versus the prior year for similar reasons.

Total expense and other (income) decreased 1.1 percent in the first quarter of 2022 versus the prior-year period primarily driven by the effects of currency, lower non-operating retirement-related costs and lower workforce rebalancing charges, partially offset by an unrealized loss on Kyndryl retained shares and higher spending reflecting our continuing investment in innovation, our ecosystem and talent, both organically and through acquisitions. We are aggressively hiring to better serve clients, while increasing our research spend to deliver innovation in AI, hybrid cloud and emerging areas such as quantum. Total operating (non-GAAP) expense and other (income) decreased 2.6 percent year to year, driven primarily by the factors described above excluding the lower non-operating retirement-related costs and the unrealized loss on Kyndryl shares.

Pre-tax income from continuing operations of $0.6 billion increased 156.0 percent and pre-tax margin was 4.4 percent, an increase of 2.5 points versus the first quarter of 2021. The continuing operations benefit from income taxes in the first quarter of 2022 was $39 million compared to a $160 million benefit in the first quarter of 2021. The current-year benefit was driven by many factors including the impacts of recently published foreign tax credit regulations,

geographical mix of income, incentives and changes in unrecognized tax benefits. The prior-year benefit was primarily related to the tax impacts from the resolution of certain tax audits. Net income from continuing operations of $0.7 billion increased 64.3 percent and the net income from continuing operations margin was 4.7 percent, up 1.6 points year to year.

Operating (non-GAAP) pre-tax income from continuing operations of $1.5 billion increased 45.9 percent and the operating (non-GAAP) pre-tax margin from continuing operations increased 2.8 points to 10.7 percent. The operating (non-GAAP) income tax provision for the first quarter of 2022 was $244 million, compared to a provision for income taxes of $25 million in the first quarter of 2021. The increase in the operating (non-GAAP) income tax provision in the first quarter of 2022, compared to the prior year was primarily driven by tax impacts from the resolution of certain tax audits in the first quarter of 2021. Operating (non-GAAP) income from continuing operations of $1.3 billion increased 25.5 percent and the operating (non-GAAP) income margin from continuing operations of 9.0 percent was up 1.3 points year to year.

Diluted earnings per share from continuing operations of $0.73 in the first quarter of 2022 increased 62.2 percent and operating (non-GAAP) diluted earnings per share of $1.40 increased 25.0 percent versus the prior-year period.

Consolidated diluted earnings per share in the first quarter of 2022 was $0.81 compared to $1.06 in the prior-year period. This includes a year-to-year reduction of $0.53 from discontinued operations due to the separation of Kyndryl.

Our balance sheet at March 31, 2022 continues to provide us with the flexibility to support the business. Cash and cash equivalents, restricted cash and marketable securities at March 31, 2022 were $10.8 billion, an increase of $3.2 billion from December 31, 2021. Total debt of $54.2 billion at March 31, 2022 increased $2.5 billion primarily due to new debt issuances.

Key drivers in the balance sheet and total cash flows were:

Total assets increased $1.3 billion ($1.8 billion adjusted for currency) from December 31, 2021 driven by:

- An increase in cash and cash equivalents, restricted cash and marketable securities of $3.2 billion ($3.3 billion adjusted for currency); and

- An increase in goodwill and net intangible assets of $0.3 billion ($0.5 billion adjusted for currency) due to additions from new acquisitions; partially offset by intangibles amortization and currency impacts; partially offset by

- A decrease in receivables of $2.5 billion ($2.4 billion adjusted for currency) primarily due to collections of higher year-end balances.

Total liabilities increased $1.2 billion ($2.1 billion adjusted for currency) from December 31, 2021 driven by:

- An increase in total debt of $2.5 billion ($2.9 billion adjusted for currency) primarily due to issuances of $4.1 billion, partially offset by maturities of $1.1 billion; and

- An increase in deferred income of $0.9 billion ($1.0 billion adjusted for currency) primarily driven by annual customer billings and continued growth in software renewal rates; partially offset by

- A decrease in accounts payable of $0.5 billion primarily due to declines from seasonally higher year-end balances;

- A decrease in retirement and nonpension postretirement benefit obligations of $0.5 billion ($0.3 billion adjusted for currency); and

- A decrease in taxes payable of $0.5 billion primarily due to indirect tax payments.

Total equity of $19.1 billion increased $0.1 billion from December 31, 2021 as a result of:

- Net income of $0.7 billion;
- A decrease in accumulated other comprehensive losses of $0.7 billion driven by retirement-related benefit plans and foreign currency translation adjustments; and
- Common stock of $0.2 billion; partially offset by
- Dividends paid of $1.5 billion.

Our cash flows from operating, investing and financing activities, as reflected in the Consolidated Statement of Cash Flows, include the cash flows of discontinued operations.

On a consolidated basis, cash provided by operating activities was $3.2 billion in the first three months of 2022, a decrease of $1.7 billion compared to the first three months of 2021. Net cash used in investing activities of $1.4 billion decreased $0.6 billion compared to the prior-year period. Financing activities were a net source of cash of $1.4 billion in the first three months of 2022 compared to a net use of cash of $5.8 billion in the first three months of 2021.

First Quarter in Review

Results of Continuing Operations

As discussed in the "Organization of Information" section, with the completion of the separation on November 3, 2021, results of Kyndryl are reported as discontinued operations. Prior periods have been reclassified to conform to this presentation in the Management Discussion to allow for a meaningful comparison of continuing operations.

Segment Details

The table below presents each reportable segment's revenue and gross margin results, followed by an analysis of the first quarter of 2022 versus the first quarter of 2021 reportable segments results. Prior-year results have been recast to conform with the changes as described in the "Organization of Information" section.

(Dollars in millions) For the three months ended March 31:	2022	2021*	Yr. to Yr. Percent/Margin Change	Yr. to Yr. Percent Change Adjusted For Currency
Revenue:				
Software	$ 5,772	$ 5,138	12.3 %	15.4 %
Gross margin	78.8 %	77.8 %	1.1 pts.	
Consulting	4,829	4,262	13.3 %	17.4 %
Gross margin	24.3 %	27.8 %	(3.5)pts.	
Infrastructure	3,219	3,293	(2.3)%	0.3 %
Gross margin	50.5 %	56.3 %	(5.9)pts.	
Financing	154	208	(26.2)%	(24.5)%
Gross margin	37.7 %	35.5 %	2.2 pts.	
Other	224	284	(21.3)%	(18.9)%
Gross margin	(32.9)%	(29.6)%	(3.3)pts.	
Total revenue	$ 14,197	$ 13,187	7.7 %	10.9 %
Total gross profit	$ 7,335	$ 7,027	4.4 %	
Total gross margin	51.7 %	53.3 %	(1.6)pts.	
Non-operating adjustments:				
Amortization of acquired intangible assets	181	174	4.0 %	
Operating (non-GAAP) gross profit	$ 7,516	$ 7,201	4.4 %	
Operating (non-GAAP) gross margin	52.9 %	54.6 %	(1.7)pts.	

* Recast to reflect segment changes.

Software

(Dollars in millions) For the three months ended March 31:	2022	2021*	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Software revenue:	$ 5,772	$ 5,138	12.3 %	15.4 %
Hybrid Platform & Solutions	$ 4,080	$ 3,800	7.4 %	10.0 %
Red Hat			18.0	21.1
Automation			3.0	5.4
Data & AI			2.1	4.4
Security			5.4	8.2
Transaction Processing	1,692	1,338	26.5	30.6

* Recast to reflect segment changes.

Software revenue of $5,772 million increased 12.3 percent as reported (15 percent adjusted for currency) in the first quarter of 2022 compared to the prior-year period. This includes incremental sales to Kyndryl which contributed over 8 points to the revenue growth. Both Hybrid Platform & Solutions and Transaction Processing grew, with Transaction Processing benefitting significantly from sales to Kyndryl. Within Software, hybrid cloud revenue of $2.1 billion grew 22 percent as reported (25 percent adjusted for currency) driven by strong growth in Hybrid Platform & Solutions. In addition, we had continued year-to-year growth this quarter in our software subscription and support renewal rates.

Hybrid Platform & Solutions revenue of $4,080 million increased 7.4 percent as reported (10 percent adjusted for currency) in the first quarter of 2022 compared to the prior-year period. Incremental sales to Kyndryl contributed approximately 1.5 points to the revenue growth. We continue to drive focus around the strategic hybrid cloud and AI needs of our clients, including Red Hat, Data & AI, Automation and Security. Red Hat revenue grew 18.0 percent as reported (21 percent adjusted for currency) in the first quarter of 2022, driven by strong performance across the Red Hat portfolio. Our foundational hybrid cloud offerings, RHEL and OpenShift, each gained market share this quarter. Red Hat's hybrid cloud offerings continue to transform enterprise IT, and we continue to deliver new innovations. Automation revenue grew 3.0 percent as reported (5 percent adjusted for currency), led by AIOps and Management and Integration. We have invested in an AI-powered approach to Automation and our solutions are resonating with clients as they address growing complexity, digital shifts, and skill shortages across their businesses. Data & AI revenue increased 2.1 percent as reported (4 percent adjusted for currency), driven by good performance across the portfolio, including continued adoption of Data Fabric, expansion of our Data Management footprint, a focus on sustainable operations with Asset & Supply Chain Management and the need for reliable data sharing with Information Exchange. Security revenue grew 5.4 percent as reported (8 percent adjusted for currency) compared to strong performance in the prior-year first quarter. We had growth in the first quarter of 2022 in Threat Management and Data Security due to the evolving cybersecurity environment. We also continue to have good client demand for Cloud Pak for Security and continue to invest in security innovation including our ReaQta acquisition in 2021.

For the first quarter of 2022, Hybrid Platform & Solutions grew annual recurring revenue (ARR) by 9 percent compared to the prior-year period. ARR is a key performance metric management uses to assess the health and growth trajectory of our Hybrid Platform & Solutions business within the Software segment. ARR is calculated by estimating the current quarter's recurring, committed value for certain types of active contracts as of the period-end date and then multiplying that value by four. This value is based on each arrangement's contract value and start date, mitigating fluctuations during the contract term, and includes the following consumption models: (1) software subscription agreements, including committed term licenses, (2) as-a-service arrangements such as SaaS and PaaS, (3) maintenance and support contracts, and (4) security managed services contracts. ARR should be viewed independently of revenue as this performance metric and its inputs may not represent the amount of revenue recognized in the period and therefore is not intended to represent current period revenue or revenue that will be recognized in future periods. ARR is calculated at estimated constant currency.

Transaction Processing revenue of $1,692 million grew 26.5 percent as reported (31 percent adjusted for currency) in the first quarter compared to the prior-year period. Incremental sales to Kyndryl contributed approximately 28 points to the revenue growth. We also continued to have strong renewals of these critical software offerings which build on the expanded zSystems capacity and traction throughout the strong z15 program.

(Dollars in millions) For the three months ended March 31:	2022	2021*	Yr. to Yr. Percent/ Margin Change
Software:			
Gross profit	$ 4,550	$ 3,995	13.9 %
Gross profit margin	78.8 %	77.8 %	1.1 pts.
Pre-tax income	$ 1,134	$ 658	72.3 %
Pre-tax margin	19.7 %	12.8 %	6.8 pts.

* Recast to reflect segment changes.

Software gross profit margin increased 1.1 points to 78.8 percent in the first quarter of 2022 compared to the prior-year period, reflecting the broad-based revenue performance in the quarter. Pre-tax income of $1,134 million increased 72.3 percent year to year and pre-tax margin increased 6.8 points to 19.7 percent in the first quarter of 2022 compared to the prior year. The pre-tax margin improvement was driven primarily by higher gross profit contribution.

Consulting

(Dollars in millions) For the three months ended March 31:	2022	2021*	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Consulting revenue:	$ 4,829	$ 4,262	13.3 %	17.4 %
Business Transformation	$ 2,255	$ 1,953	15.5 %	19.3 %
Technology Consulting	955	835	14.4	18.9
Application Operations	1,619	1,474	9.8	14.2

* Recast to reflect segment change.

Consulting revenue of $4,829 million increased 13.3 percent as reported and 17 percent adjusted for currency in the first quarter of 2022 compared to the prior-year period, with strong growth in revenue and signings across all three business areas. Our book-to-bill remains solid at 1.1 for the first quarter of 2022 as clients continue to trust IBM to execute their complex business transformations by leveraging our skills, deep industry expertise and our ecosystem. Within Consulting, hybrid cloud revenue of $2.1 billion grew 24 percent as reported (29 percent adjusted for currency), with continued strong demand and momentum in our Red Hat practice which added over 130 new clients this quarter. In the first quarter of 2022, Red Hat related signings nearly doubled year to year. Our strategic partnerships also contributed to our performance with solid double-digit revenue growth in the quarter from these partnerships, led by Salesforce, SAP, AWS and Azure.

Business Transformation revenue of $2,255 million increased 15.5 percent as reported and 19 percent adjusted for currency on a year-to-year basis. We had broad-based growth with strength in our practices centered on customer experience, talent and data transformations as well as supply chain and finance application deployments. We continued to bring together technology and strategic consulting to transform critical workflows at scale.

Technology Consulting revenue of $955 million increased 14.4 percent as reported and 19 percent adjusted for currency in the first quarter of 2022 compared to the prior-year period, led by growth in our engagements around developing and modernizing applications for cloud deployments.

Application Operations revenue of $1,619 million increased 9.8 percent as reported and 14 percent adjusted for currency compared to the first quarter of 2021, led by growth in cloud application management. We had growth in areas that focus on the management of applications and cloud platform services required to run hybrid cloud environments.

(Dollars in millions) For the three months ended March 31:	2022	2021*	Yr. to Yr. Percent/ Margin Change
Consulting:			
Gross profit	$ 1,176	$ 1,187	(0.9)%
Gross profit margin	24.3 %	27.8 %	(3.5)pts.
Pre-tax income	$ 348	$ 277	25.8 %
Pre-tax margin	7.2 %	6.5 %	0.7 pts.

* Recast to reflect segment change.

Consulting first-quarter gross profit margin of 24.3 percent decreased 3.5 points on a year-to-year basis, reflecting the significant investments we have made to enable revenue growth. We continued to invest in our partner ecosystem to expand our reach and continue to scale our recent acquisitions. We are also investing in talent across our workforce, by further developing skills in existing resources, adding certifications and bringing in technical skills in areas of hybrid cloud and AI. Consulting continues to be impacted by the competitive and inflationary labor market which exerts pressure on the profitability of our existing contracts. We expect to capture this increased resource cost through price in our engagements and recognize this will take a few quarters to be reflected in our margin profile. Pre-tax income increased 25.8 percent to $348 million compared to the prior year. Pre-tax margin increased 0.7 points to 7.2 percent in the first-quarter 2022 compared to the prior year. We have taken actions to streamline our operations and go-to-market structure which have contributed to the pre-tax margin expansion.

Consulting Signings and Book-to-Bill

(Dollars in millions) For the three months ended March 31:	2022	2021	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Total Consulting signings	$ 5,136	$ 3,796	35.3 %	40.9 %

Signings are management's initial estimate of the value of a client's commitment under a services contract within IBM Consulting. There are no third-party standards or requirements governing the calculation of signings. The calculation used by management involves estimates and judgments to gauge the extent of a client's commitment, including the type and duration of the agreement, and the presence of termination charges or wind-down costs.

Contract extensions and increases in scope are treated as signings only to the extent of the incremental new value. Total signings can vary over time due to a variety of factors including, but not limited to, the timing of signing a small number of larger contracts. Signings associated with an acquisition will be recognized on a prospective basis.

Management believes the estimated values of signings disclosed provide an indication of our forward-looking revenue. Signings are used to monitor the performance of the business and viewed as useful information for management and shareholders. The conversion of signings into revenue may vary based on the types of services and solutions, contract duration, customer decisions, and other factors, which may include, but are not limited to, the macroeconomic environment.

Book-to-bill represents the ratio of IBM Consulting signings to its revenue over the same period. The metric is a useful indicator of the demand of our business over time. This definition should be read in conjunction with the signings definition noted above.

Infrastructure

(Dollars in millions) For the three months ended March 31:	2022	2021*	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Infrastructure revenue:	$ 3,219	$ 3,293	(2.3)%	0.3 %
Hybrid Infrastructure	$ 1,700	$ 1,782	(4.6)%	(2.5)%
zSystems			(19.0)	(17.6)
Distributed Infrastructure			5.2	7.8
Infrastructure Support	1,519	1,512	0.4	3.7

* Recast to reflect segment change.

Infrastructure revenue of $3,219 million decreased 2.3 percent as reported and was flat adjusted for currency in the first quarter of 2022 compared to the prior-year period. This includes incremental sales to Kyndryl which contributed over 8 points to the revenue growth. Within Infrastructure, hybrid cloud revenue of $0.7 billion decreased 20 percent as reported (18 percent adjusted for currency), driven by product cycle dynamics.

Hybrid Infrastructure revenue of $1,700 million decreased 4.6 percent as reported (2 percent adjusted for currency) compared to first quarter of 2021. Incremental sales to Kyndryl contributed over 8 points to the revenue growth. Within Hybrid Infrastructure, zSystems revenue declined 19.0 percent as reported (18 percent adjusted for currency) year to year. This was the eleventh quarter of availability of the z15 program, which has been a very strong program in both revenue performance and capacity, with more z15 MIPs shipped than in any other previous program. In April 2022, we announced the newest solution, IBM z16, which provides differentiated capabilities including embedded AI at scale, cyber-resilient security and cloud-native development for hybrid cloud. Distributed Infrastructure revenue grew 5.2 percent as reported and 8 percent adjusted for currency. Revenue growth in Power reflects clients' demand for SAP S/4HANA data intensive workloads on our newest Power10 high-end system.

Infrastructure Support revenue of $1,519 million increased 0.4 percent as reported and 4 percent adjusted for currency compared to the prior-year period. This includes incremental sales to Kyndryl which contributed over 8 points of revenue growth for the quarter.

(Dollars in millions) For the three months ended March 31:	2022	2021*	Yr. to Yr. Percent/ Margin Change
Infrastructure:			
Gross profit	$ 1,625	$ 1,856	(12.4)%
Gross profit margin	50.5 %	56.3 %	(5.9)pts.
Pre-tax income	$ 199	$ 292	(31.7)%
Pre-tax margin	6.2 %	8.9 %	(2.7)pts.

* Recast to reflect segment change.

Infrastructure gross profit margin decreased 5.9 points to 50.5 percent in the first quarter of 2022 compared to the prior year, driven primarily by mix due to product cycle dynamics. Pre-tax income decreased 31.7 percent to $199 million in the first quarter of 2022 compared to the prior-year period. Pre-tax margin decreased 2.7 points to 6.2 points compared to the prior-year first quarter, reflecting the zSystems product cycle.

Financing

See pages 70 through 73 for a discussion of Financing's segment results.

Geographic Revenue

In addition to the revenue presentation by reportable segment, we also measure revenue performance on a geographic basis.

(Dollars in millions) For the three months ended March 31:	2022	2021	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Total Revenue	$ 14,197	$ 13,187	7.7 %	10.9 %
Americas	$ 7,056	$ 6,477	8.9 %	8.9 %
Europe/Middle East/Africa (EMEA)	4,231	3,928	7.7	13.9
Asia Pacific	2,910	2,781	4.6	11.3

Total revenue of $14,197 million increased 7.7 percent as reported (11 percent adjusted for currency) in the first quarter of 2022 compared to the prior year, which includes approximately 5 points of revenue growth from incremental sales to Kyndryl.

Americas revenue of $7,056 million increased 8.9 percent as reported (9 percent adjusted for currency), which includes approximately 4 points of revenue growth from incremental sales to Kyndryl. Within North America, the U.S. increased 7.0 percent compared to the prior year and Canada increased 8.2 percent as reported (8 percent adjusted for currency). Latin America increased 25.5 percent as reported (25 percent adjusted for currency), with Brazil increasing 24.8 percent as reported (20 percent adjusted for currency).

In EMEA, total revenue of $4,231 million increased 7.7 percent as reported (14 percent adjusted for currency), which includes approximately 7 points of revenue growth from incremental sales to Kyndryl. The UK, France and Germany increased 14.4 percent, 12.6 percent and 8.5 percent, respectively, as reported, and increased 18 percent, 20 percent and 16 percent, respectively, adjusted for currency. Italy decreased 3.7 percent as reported, but increased 3 percent adjusted for currency.

Asia Pacific revenue of $2,910 million increased 4.6 percent as reported (11 percent adjusted for currency), which includes approximately 6 points of revenue growth from incremental sales to Kyndryl. Japan increased 4.0 percent as reported (14 percent adjusted for currency). India and Australia increased 25.9 percent and 11.4 percent, respectively, as reported and 30 percent and 19 percent, respectively, adjusted for currency. China decreased 11.2 percent as reported (13 percent adjusted for currency).

Expense

Total Expense and Other (Income)

(Dollars in millions) For the three months ended March 31:	2022	2021	Yr. to Yr. Percent Change
Total expense and other (income)	$ 6,712	$ 6,784	(1.1)%
Non-operating adjustments:			
Amortization of acquired intangible assets	$ (280)	$ (273)	2.5 %
Acquisition-related charges	(7)	(16)	(57.4)
Non-operating retirement-related (costs)/income	(202)	(332)	(39.2)
Kyndryl-related impacts	(222)	—	nm
Operating (non-GAAP) expense and other (income)	$ 6,001	$ 6,162	(2.6)%
Total expense-to-revenue ratio	47.3 %	51.4 %	(4.2)pts.
Operating (non-GAAP) expense-to-revenue ratio	42.3 %	46.7 %	(4.5)pts.

nm — not meaningful

Total expense and other (income) decreased 1.1 percent in the first quarter of 2022 versus the prior-year period primarily driven by the effects of currency, lower non-operating retirement-related costs, lower workforce rebalancing charges and lower spending for shared services transferred to Kyndryl, partially offset by an unrealized loss from Kyndryl retained shares and higher spending reflecting our continuing investment in innovation, our ecosystem and talent, both organically and through acquisitions. We are aggressively hiring to better serve clients, while increasing our research spend to deliver innovation in AI, hybrid cloud and emerging areas such as quantum. Total operating (non-GAAP) expense and other (income) decreased 2.6 percent year to year, driven primarily by the factors described above excluding the lower non-operating retirement-related costs and the unrealized loss on Kyndryl stock.

For additional information regarding total expense and other (income) for both expense presentations, see the following analyses by category.

Selling, General and Administrative Expense

(Dollars in millions) For the three months ended March 31:	2022	2021	Yr. to Yr. Percent Change
Selling, general and administrative expense:			
Selling, general and administrative — other	$ 3,824	$ 3,890	(1.7)%
Advertising and promotional expense	336	345	(2.4)
Workforce rebalancing charges	5	94	(94.4)
Amortization of acquired intangible assets	279	272	2.6
Stock-based compensation	136	115	18.6
Provision for/(benefit from) expected credit loss expense	16	(28)	nm
Total selling, general and administrative expense	$ 4,597	$ 4,688	(1.9)%
Non-operating adjustments:			
Amortization of acquired intangible assets	$ (279)	$ (272)	2.6 %
Acquisition-related charges	(7)	(16)	(57.4)
Kyndryl-related impacts	0	—	nm
Operating (non-GAAP) selling, general and administrative expense	$ 4,311	$ 4,399	(2.0)%

nm — not meaningful

Total selling, general and administrative (SG&A) expense decreased 1.9 percent in the first quarter of 2022 versus the prior-year period driven primarily by the following factors:

- Lower workforce rebalancing charges (2 points); and
- The effects of currency (2 points); partially offset by
- A provision for expected credit loss expense compared to a benefit in the prior-year period (1 point); and
- Higher spending (1 point) reflecting our continuing investment in innovation, our ecosystem and talent, partially offset by lower spending for shared services transferred to Kyndryl.

Operating (non-GAAP) expense decreased 2.0 percent year to year primarily driven by the same factors.

The provision for expected credit loss expense increased $44 million year to year in the first three months of 2022 primarily driven by higher expense for specific reserves in the current-year period and a decrease in general reserves in the prior-year period. The receivables provision coverage was 2.3 percent at March 31, 2022, excluding receivables classified as held for sale, an increase of 20 basis points compared to December 31, 2021. The increase was primarily driven by the overall decline in total receivables.

Research, Development and Engineering

(Dollars in millions) For the three months ended March 31:	2022	2021	Yr. to Yr. Percent Change
Research, development and engineering expense	$ 1,679	$ 1,616	3.9 %

Research, development and engineering (RD&E) expense in the first quarter of 2022 increased 3.9 percent year to year reflecting our continuing investment to deliver innovation in AI, hybrid cloud and emerging areas such as quantum. Higher spending (5 points) in the current-year period was partially offset by the effects of currency (1 point).

Intellectual Property and Custom Development Income

(Dollars in millions) For the three months ended March 31:	2022	2021	Yr. to Yr. Percent Change
Intellectual Property and Custom Development Income:			
Licensing of intellectual property including royalty-based fees	$ 71	$ 74	(4.0)%
Custom development income	48	65	(26.2)
Sales/other transfers of intellectual property	2	6	(73.3)
Total	$ 121	$ 146	(16.9)%

Total intellectual property and custom development income in the first quarter of 2022 decreased 16.9 percent year to year. The timing and amount of licensing, sales or other transfers of IP may vary significantly from period to period depending upon the timing of licensing agreements, economic conditions, industry consolidation and the timing of new patents and know-how development.

Other (Income) and Expense

(Dollars in millions) For the three months ended March 31:	2022	2021	Yr. to Yr. Percent Change
Other (income) and expense:			
Foreign currency transaction losses/(gains)	$ (176)	$ (109)	61.0 %
(Gains)/losses on derivative instruments	102	160	(36.1)
Interest income	(17)	(14)	27.5
Net (gains)/losses from securities and investment assets	218	(6)	nm
Retirement-related costs/(income)	202	332	(39.2)
Other	(83)	(18)	356.9
Total other (income) and expense	$ 246	$ 346	(28.8)%
Non-operating adjustments:			
Amortization of acquired intangible assets	$ (1)	$ (1)	—
Non-operating retirement-related (costs)/income	(202)	(332)	(39.2)%
Kyndryl-related impacts	(222)	—	nm
Operating (non-GAAP) other (income) and expense	$ (179)	$ 13	nm

nm - not meaningful

Total other (income) and expense was expense of $246 million in the first quarter of 2022 compared to expense of $346 million in the prior-year period. The year-to-year change was primarily driven by:

- Lower non-operating retirement-related costs ($130 million). Refer to “Retirement-Related Plans” for additional information; and
- Net exchange gains (including derivative instruments) in the current-year period versus net exchange losses in the prior-year period ($124 million); partially offset by
- An unrealized loss on the Kyndryl retained shares ($222 million).

Operating (non-GAAP) other (income) and expense was income of $179 million in the first quarter of 2022 compared to expense of $13 million in the prior-year period. The year-to-year change was driven primarily by the foreign exchange dynamics described above.

Interest Expense

(Dollars in millions) For the three months ended March 31:	2022	2021	Yr. to Yr. Percent Change
Interest expense	$ 311	$ 280	10.9 %

Interest expense increased $31 million in the first quarter of 2022 compared to the prior-year period. Interest expense is presented in cost of financing in the Consolidated Income Statement if the related external borrowings are to support the Financing external business. Overall interest expense (excluding capitalized interest) for the first quarter of 2022 was $393 million, an increase of $7 million versus the prior-year period, primarily driven by higher average interest rates, partially offset by a lower average debt balance in the current year.

Retirement-Related Plans

The following table provides the total pre-tax cost for all retirement-related plans. The operating cost amounts are included in the Consolidated Income Statement within the caption (e.g., Cost, SG&A, RD&E) relating to the job function of the plan participants. The non-operating cost amounts are included in other (income) and expense.

(Dollars in millions) For the three months ended March 31:	2022	2021	Yr. to Yr. Percent Change
Retirement-related plans — cost:			
Service cost	$ 66	$ 68	(3.8)%
Multi-employer plans	4	6	(32.9)
Cost of defined contribution plans	239	256	(6.8)
Total operating costs	$ 309	$ 330	(6.6)%
Interest cost	$ 467	$ 410	14.1 %
Expected return on plan assets	(749)	(731)	2.5
Recognized actuarial losses	460	622	(26.0)
Amortization of prior service costs/(credits)	7	3	106.8
Curtailments/settlements	8	17	(55.0)
Other costs	9	11	(15.4)
Total non-operating costs/(income)	$ 202	$ 332	(39.2)%
Total retirement-related plans — cost	$ 510	$ 663	(23.0)%

Total pre-tax retirement-related plan cost decreased by $152 million compared to the first quarter of 2021, primarily driven by a decrease in recognized actuarial losses ($162 million), higher expected return on plan assets ($18 million), and lower cost of defined contribution plans ($17 million), partially offset by higher interest costs ($58 million).

As described in the “Operating (non-GAAP) Earnings” section, management characterizes certain retirement-related costs as operating and others as non-operating. Utilizing this characterization, operating retirement-related costs in the first quarter of 2022 were $309 million, a decrease of $22 million compared to the first quarter of 2021, primarily driven by lower cost of defined contribution plans ($17 million). Non-operating costs of $202 million in the first quarter of 2022 decreased $130 million year to year, driven by a decrease in recognized actuarial losses ($162 million), and higher expected return on plan assets ($18 million), partially offset by higher interest costs ($58 million).

Taxes

The continuing operations benefit from income taxes for the first quarter of 2022 was $39 million, compared to a benefit from income taxes of $160 million in the first quarter of 2021. The operating (non-GAAP) income tax provision for the first quarter of 2022 was $244 million, compared to a provision for income taxes of $25 million in the first quarter of 2021.

The continuing operations benefit from income taxes in the first quarter of 2022 was driven by many factors including the impacts of recently published foreign tax credit regulations, geographical mix of income, incentives and changes in unrecognized tax benefits. The continuing operations benefit from income taxes in the first quarter of 2021 was primarily related to the tax impacts from the resolution of certain tax audits. The increase in the operating (non-GAAP) income tax provision in the first quarter of 2022, compared to the prior year was primarily driven by tax impacts from the resolution of certain tax audits in the first quarter of 2021.

IBM’s full-year tax provision and effective tax rate are impacted by recurring factors including the geographic mix of income before taxes, incentives, changes in unrecognized tax benefits and any discrete tax events, such as the settlement of income tax audits and changes in or new interpretations of tax laws. The GAAP tax provision and effective

tax rate could also be affected by adjustments to the previously recorded charges for U.S. tax reform attributable to any changes in law, new regulations and guidance, and audit adjustments, among others.

During the fourth quarter of 2020, the U.S. Internal Revenue Service (IRS) concluded its examination of the company's U.S. income tax returns for 2013 and 2014, which had a specific focus on certain cross-border transactions that occurred in 2013 and issued a final Revenue Agent's Report (RAR). The IRS' proposed adjustments relative to these cross-border transactions, if sustained, would result in additional taxable income of approximately $4.5 billion. The company strongly disagrees with the IRS on these specific matters and filed its IRS Appeals protest in the first quarter of 2021. In the third quarter of 2018, the IRS commenced its audit of the company's U.S. tax returns for 2015 and 2016. The company anticipates that this audit will be completed in 2022. In the fourth quarter of 2021, the IRS commenced its audit of the company's U.S. tax returns for 2017 and 2018. With respect to major U.S. state and foreign taxing jurisdictions, the company is generally no longer subject to tax examinations for years prior to 2015. The company is no longer subject to income tax examination of its U.S. federal tax return for years prior to 2013. The open years contain matters that could be subject to differing interpretations of applicable tax laws and regulations as it relates to the amount and/or timing of income, deductions, and tax credits. Although the outcome of tax audits is always uncertain, the company believes that adequate amounts of tax, interest and penalties have been provided for any adjustments that are expected to result for these years.

The company is involved in a number of income tax-related matters in India for having challenged tax assessments issued by the India Tax Authorities. At March 31, 2022, the company had recorded $709 million as prepaid income taxes in India. A significant portion of this balance represents cash tax deposits paid over time to protect the company's right to appeal various income tax assessments made by the India Tax Authorities. Although the outcome of tax audits are always uncertain, the company believes that adequate amounts of tax, interest and penalties have been provided for any adjustments that are expected to result for these years.

The amount of unrecognized tax benefits at March 31, 2022 is $8,699 million which can be reduced by $548 million associated with timing adjustments, U.S. tax credits, potential transfer pricing adjustments, and state income taxes. The net amount of $8,151 million, if recognized, would favorably affect the company's effective tax rate.

Earnings Per Share

Basic earnings per share is computed on the basis of the weighted-average number of shares of common stock outstanding during the period. Diluted earnings per share is computed on the basis of the weighted-average number of shares of common stock outstanding plus the effect of dilutive potential common shares outstanding during the period using the treasury stock method. Dilutive potential common shares include outstanding stock options and stock awards.

For the three months ended March 31:	2022	2021	Yr. to Yr. Percent Change
Earnings per share of common stock from continuing operations:			
Assuming dilution	$ 0.73	$ 0.45	62.2 %
Basic	$ 0.74	$ 0.45	64.4 %
Diluted operating (non-GAAP)	$ 1.40	$ 1.12	25.0 %
Weighted-average shares outstanding: (in millions)			
Assuming dilution	909.2	901.7	0.8 %
Basic	899.3	893.6	0.6 %

Actual shares outstanding at March 31, 2022 were 899.4 million. The weighted-average number of common shares outstanding assuming dilution during the first quarter of 2022 was 7.5 million shares (0.8 percent) higher than the same period of 2021.

Financial Position

Dynamics

Our balance sheet at March 31, 2022 continues to provide us with flexibility to support the business.

Cash, restricted cash and marketable securities at March 31, 2022 were $10,769 million, an increase of $3,213 million from December 31, 2021. Total debt of $54,234 million at March 31, 2022 increased $2,531 million from December 31, 2021 primarily due to new debt issuances. We issued $4,080 million of debt in February 2022 which will support maturities later in the year. We continue to manage our debt levels while being acquisitive and without sacrificing investments in our business or our solid dividend policy.

Our cash flow is presented on a consolidated basis and includes discontinued operations. Refer to note 3, "Separation of Kyndryl," for additional information. In the first three months of 2022, we generated $3,248 million in cash from operating activities, compared to $4,914 million in the first three months of 2021. We invested $698 million in acquisitions and returned $1,475 million to shareholders through dividends in the first quarter of 2022. Our cash generation permits us to invest and deploy capital to areas with the most attractive long-term opportunities.

Our pension plans were well funded at the end of 2021, with worldwide qualified plans funded at 107 percent. Overall pension funded status as of the end of March 2022 was fairly consistent with year-end 2021, and we currently have no change to expected plan contributions in 2022.

IBM Working Capital

(Dollars in millions)	At March 31, 2022	At December 31, 2021
Current assets	$ 31,330	$ 29,539
Current liabilities	34,056	33,619
Working capital	$ (2,726)	$ (4,080)
Current ratio	0.92:1	0.88:1

Working capital increased $1,354 million from the year-end 2021 position. The key changes are described below:

Current assets increased $1,791 million ($1,926 million adjusted for currency) due to:

- An increase of $3,213 million ($3,261 million adjusted for currency) in cash and cash equivalents, restricted cash, and marketable securities; partially offset by
- A decline in receivables of $1,635 million ($1,547 million adjusted for currency) mainly due to collections of higher year-end balances.

Current liabilities increased $437 million ($767 million adjusted for currency) as a result of:

- An increase in deferred income of $1,008 million ($1,086 million adjusted for currency) primarily driven by annual customer billings and continued growth in software renewal rates; and
- An increase in short-term debt of $903 million ($883 million adjusted for currency) primarily due to reclassifications of $2,014 million from long-term debt to reflect upcoming maturities; partially offset by maturities of $1,087 million; partially offset by
- A decrease in accounts payable of $502 million ($474 million adjusted for currency) primarily due to declines from seasonally higher year-end balances;

- A decrease in taxes payable of $492 million ($476 million adjusted for currency) primarily due to indirect tax payments; and

- A decrease of $461 million ($243 million adjusted for currency) in compensation and benefits and other accrued expenses and liabilities.

Receivables and Allowances

Roll Forward of Total IBM Receivables Allowance for Credit Losses

(Dollars in millions) January 1, 2022	Additions / (Releases) *	Write-offs **	Foreign currency and other	March 31, 2022
$ 443	$ 17	$ (24)	$ (5)	$ 432

* Additions/(Releases) for Allowance for Credit Losses are recorded in expense.
**Refer to note A, "Significant Accounting Policies," in our 2021 Annual Report for additional information regarding allowance for credit loss write-offs.

Excluding receivables classified as held for sale, the total IBM receivables provision coverage was 2.3 percent at March 31, 2022, an increase of 20 basis points compared to December 31, 2021. The increase was primarily driven by the overall decline in total receivables. The majority of the write-offs during the three months ended March 31, 2022 related to receivables which had been previously reserved.

Financing Segment Receivables and Allowances

The following table presents external Financing segment receivables excluding receivables classified as held for sale, and immaterial miscellaneous receivables.

(Dollars in millions)	At March 31, 2022	At December 31, 2021
Amortized cost *	$ 11,563	$ 12,859
Specific allowance for credit losses	141	159
Unallocated allowance for credit losses	37	42
Total allowance for credit losses	179	201
Net financing receivables	$ 11,385	$ 12,658
Allowance for credit losses coverage	1.5 %	1.6 %

* Includes deferred initial direct costs which are expensed in IBM's consolidated financial results.

The percentage of Financing segment receivables reserved decreased from 1.6 percent at December 31, 2021, to 1.5 percent at March 31, 2022, primarily driven by write-offs of previously reserved receivables, partially offset by the decline in amortized cost.

Roll Forward of Financing Segment Receivables Allowance for Credit Losses (included in Total IBM)

(Dollars in millions) January 1, 2022	Additions / (Releases)*	Write-offs **	Foreign currency and other	March 31, 2022
$ 201	$ (8)	$ (17)	$ 3	$ 179

* Additions/(Releases) for Allowance for Credit Losses are recorded in expense.
** Refer to note A, "Significant Accounting Policies," in our 2021 Annual Report for additional information regarding allowance for credit loss write-offs.

Financing's expected credit loss expense (including reserves for off-balance sheet commitments which are recorded in other liabilities) was a net release of $10 million for the three months ended March 31, 2022, compared to a net

release of $18 million for the same period in 2021. The decrease in net releases was primarily driven by lower unallocated reserve requirements in the prior year in Americas due to sales of receivables, partially offset by specific reserve releases in the current year in Americas and EMEA.

Noncurrent Assets and Liabilities

(Dollars in millions)	At March 31, 2022	At December 31, 2021
Noncurrent assets	$ 101,945	$ 102,462
Long-term debt	$ 46,545	$ 44,917
Noncurrent liabilities (excluding debt)	$ 33,562	$ 34,469

The decrease in noncurrent assets of $517 million ($146 million adjusted for currency) was driven by:

- A decrease in long-term financing receivables of $815 million ($793 million adjusted for currency) due to reclasses to short-term receivables and declines from seasonally higher year-end balances; partially offset by
- An increase in goodwill and net intangible assets of $265 million ($460 million adjusted for currency) due to additions from new acquisitions; partially offset by intangibles amortization and currency impacts.

Long-term debt increased $1,628 million ($1,972 million adjusted for currency) primarily driven by:

- Issuances of $4,063 million; partially offset by
- Reclassifications to short-term debt of $2,014 million to reflect upcoming maturities.

Noncurrent liabilities (excluding debt) decreased $907 million ($616 million adjusted for currency) primarily driven by:

- A decrease in retirement and postretirement benefit obligations of $498 million ($324 million adjusted for currency); and
- A decrease of $410 million ($292 million adjusted for currency) in deferred income, operating lease liabilities and other liabilities.

Debt

Our funding requirements are continually monitored and we execute our strategies to manage the overall asset and liability profile. Additionally, we maintain sufficient flexibility to access global funding sources as needed.

(Dollars in millions)	At March 31, 2022	At December 31, 2021
Total company debt	$ 54,234	$ 51,703
Financing segment debt*	$ 12,168	$ 13,929
Non-Financing debt	$ 42,067	$ 37,775

* Financing segment debt includes debt of $1,183 million at March 31, 2022 and $1,345 million at December 31, 2021 to support intercompany financing receivables and other intercompany assets. Refer to Financing's "Financial Position" on page 71 for additional details.

Total debt of $54,234 million increased $2,531 million ($2,855 million adjusted for currency) from December 31, 2021, primarily driven by issuances of $4,080 million, partially offset by maturities of $1,111 million.

Non-Financing debt of $42,067 million increased $4,292 million ($4,582 million adjusted for currency) from December 31, 2021 primarily due to new debt issuances.

Financing segment debt of $12,168 million decreased $1,761 million ($1,727 million adjusted for currency) from December 31, 2021 primarily due to lower funding requirements associated with financing receivables.

Financing provides financing solutions predominantly for IBM's external client assets, and the debt used to fund Financing assets is primarily composed of intercompany loans. Total debt changes generally correspond with the level of client and commercial financing receivables, the level of cash and cash equivalents, the change in intercompany and external payables and the change in intercompany investment from IBM. The terms of the intercompany loans are set by the company to substantially match the term, currency and interest rate variability underlying the financing receivable and are based on arm's-length pricing. The Financing debt-to-equity ratio remained at 9.0 to 1 at March 31, 2022.

We measure Financing as a stand-alone entity, and accordingly, interest expense relating to debt supporting Financing's external client and internal business is included in the "Financing Results of Operations" and in note 5, "Segments." In the Consolidated Income Statement, the external debt-related interest expense supporting Financing's internal financing to IBM is classified as interest expense.

Equity

Total equity increased $116 million from December 31, 2021, primarily due to an increase from net income of $733 million, a decrease in accumulated other comprehensive losses of $703 million driven by retirement-related benefit plans of ($352 million) and foreign currency translation adjustments ($306 million), and common stock of $221 million; partially offset by dividends paid of $1,475 million.

Cash Flow

Our cash flows from operating, investing and financing activities, as reflected in the Consolidated Statement of Cash Flows on page 7, are summarized in the table below and include the cash flows of discontinued operations. These amounts also include the cash flows associated with the Financing business.

(Dollars in millions) **For the three months ended March 31:**	**2022**	**2021**
Net cash provided by/(used in):		
Operating activities	$ 3,248	$ 4,914
Investing activities	(1,358)	(2,000)
Financing activities	1,377	(5,783)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(5)	(134)
Net change in cash, cash equivalents and restricted cash	$ 3,263	$ (3,002)

Net cash provided by operating activities decreased $1,666 million as compared to the first three months of 2021 driven primarily by:

- A decrease of cash provided by financing receivables of $1,232 million primarily driven by higher prior year sales of financing receivables;
- A decrease in deferred income of $605 million due to strong performance in the prior-year period; and
- An increase in inventory to mitigate supply chain disruption and in anticipation of the z16 cycle; partially offset by
- A decrease in workforce rebalancing payments of $401 million.

Net cash used in investing activities decreased $642 million driven by:

- A decrease in cash used for acquisitions of $422 million; and
- A decrease in cash used for net capital expenditures of $152 million.

Financing activities were a net source of cash of $1,377 million in the first three months of 2022 compared to a net use of cash of $5,783 million in the first three months of 2021. The year-to-year change of $7,160 million was driven by:

- An increase in net cash provided by debt transactions of $7,247 million primarily driven by a higher level of maturities in the prior year, and current year net additions.

Results of Discontinued Operations

Income from discontinued operations, net of tax was $71 million in the first quarter of 2022 compared to $552 million in the prior-year period. As the separation of Kyndryl occurred on November 3, 2021, the first quarter of 2021 included a full quarter of Kyndryl operations. The current-year income primarily relates to a joint venture historically managed by Kyndryl, which did not transfer at separation due to the transfer being subject to regulatory approval. Upon receiving regulatory approval in the first quarter of 2022, the company sold its majority shares in the joint venture to Kyndryl. See note 3, “Separation of Kyndryl,” for additional information.

Looking Forward

Our first quarter results reflect the changes we have made to position our company for the future. This solid start to 2022 reinforces the confidence we have in our strategy. Harnessing the power of technologies such as hybrid cloud and AI remains essential as our clients face several strategic challenges and opportunities including competition for talent, supply chain issues, inflation, cybersecurity and geopolitical instability. We continue to see a strong demand environment for both technology and consulting as we help our clients respond to these challenges and opportunities. Over the last two years, we have taken a series of significant steps to capture this demand, and our investments and actions are paying off.

Hybrid Cloud and AI Progress

The hybrid cloud platform we have built is open, secure and flexible and at its core is based on Red Hat, which gives clients powerful software capabilities based on open-source innovation. Our software has been optimized for the platform and helps our clients apply AI, automation and security to make their businesses work better. Our global team of consultants offers deep business expertise by co-creating with clients and finding ways to harness the power of technology to accelerate their digital transformation journeys. Our infrastructure allows clients to take full advantage of an extended hybrid cloud environment.

This platform-centric strategy is producing solid results. We have more than 4,000 hybrid cloud platform clients, including 200 added in the first quarter of 2022. This provides two avenues for growth - from the incremental number of clients, but more importantly it allows us to expand our software, consulting and infrastructure footprint as we help our clients digitally transform and build new and differentiated experiences and services.

We have taken actions to streamline our operations and simplify our go-to-market model, consistent with our more focused, platform-centric business. We are making significant changes to the way we work to build a client-centric culture based on technical experience. Our new client engagement model, based on experiential selling, client engineering, and co-creation, is strongly resonating with our clients. We are accelerating our strategy with continued investment in innovation, our ecosystem and talent.

Innovation – we continue to meet the needs of our clients today while shaping the technologies of tomorrow through increased investments in R&D to deliver innovation in AI, hybrid cloud and emerging areas like quantum. In the first quarter of 2022, we announced a new AIOps solution in collaboration with Flexera that is designed to automate software license compliance, and in April 2022, we announced the IBM z16 platform which is designed for cloud-native development and cybersecurity resilience. We continue to invest in quantum and we are the only company to have an operational computer that is available on our cloud. We made three acquisitions in first quarter 2022 to further strengthen our portfolio and add value to our clients.

Ecosystem – we continue to invest in our ecosystem, both organically and inorganically, and gain momentum with our partner ecosystem. Consulting signings with our ecosystem partners were up more than 50 percent to approximately $2 billion in the first quarter of 2022. We are also investing through acquisition, for example Neudesic, which was acquired in the first quarter of 2022, adds key hyperscaler capabilities to address hybrid multi-cloud demand.

Talent – we are investing in talent across our workforce. We are upskilling existing resources, adding capabilities and skills to support our garages and client engineering centers, adding client success managers to help clients get the most of their IBM solutions and expanding our technical talent across the business.

The fundamentals of our business model remain solid. Our balance sheet and liquidity position remain strong. At March 31, 2022, we had $10.8 billion of cash and cash equivalents, restricted cash and marketable securities and we continue to manage our debt levels while being acquisitive and without sacrificing investments in our business or our solid dividend policy.

IBM is now a very different company. We have, in effect, changed our company's trajectory. Our business reflects a higher growth, higher value mix with a significant recurring base, led by software. We are managing for the long-term and are confident in the direction and focus of our business. We expect to continue our progress as a leading hybrid cloud and AI company with a focus on revenue growth and cash generation while maintaining our solid and modestly growing dividend policy. Our expectations for 2022 continue to be aligned with our mid-term financial model which was previously communicated at our investor briefing on October 4, 2021.

Retirement-Related Plans

Our pension plans are well funded. Contributions for all retirement-related plans are expected to be approximately $2.1 billion in 2022, approximately flat compared to 2021, of which $0.2 billion generally relates to legally required contributions to non-U.S. defined benefit and multi-employer plans. We expect 2022 pre-tax retirement-related plan cost to be approximately $2.1 billion, a decrease of approximately $500 million compared to 2021. This estimate reflects current pension plan assumptions at December 31, 2021. Within total retirement-related plan cost, operating retirement-related plan cost is expected to be approximately $1.2 billion, a decrease of approximately $100 million versus 2021. Non-operating retirement-related plan cost is expected to be approximately $0.9 billion, a decrease of approximately $400 million compared to 2021, primarily driven by lower recognized actuarial losses and higher income from expected return on assets.

Currency Rate Fluctuations

Changes in the relative values of non-U.S. currencies to the U.S. dollar (USD) affect our financial results and financial position. At March 31, 2022, currency changes resulted in assets and liabilities denominated in local currencies being translated into fewer dollars than at year-end 2021. We use financial hedging instruments to limit specific currency risks related to financing transactions and other foreign currency-based transactions.

During periods of sustained movements in currency, the marketplace and competition adjust to the changing rates. For example, when pricing offerings in the marketplace, we may use some of the advantage from a weakening U.S. dollar to improve our position competitively, and price more aggressively to win the business, essentially passing on a portion of the currency advantage to our customers. Competition will frequently take the same action. Consequently, we believe that some of the currency-based changes in cost impact the prices charged to clients. We also maintain currency hedging programs for cash management purposes which temporarily mitigate, but do not eliminate, the volatility of currency impacts on our financial results.

We translate revenue, cost and expense in our non-U.S. operations at current exchange rates in the reported period. References to "adjusted for currency" or "constant currency" reflect adjustments based upon a simple mathematical formula. However, this constant currency methodology that we utilize to disclose this information does not incorporate any operational actions that management could take to mitigate fluctuating currency rates. Currency movements impacted our year-to-year revenue and earnings per share growth in the first three months of 2022. Based on the currency rate movements in the first three months of 2022, total revenue increased 7.7 percent as reported and 10.9 percent at constant currency versus the first three months of 2021. On an income from continuing operations before income taxes basis, these translation impacts, mitigated by the net impact of hedging activities, resulted in a theoretical maximum (assuming no pricing or sourcing actions) decrease of approximately $30 million in the first three months of 2022 on an as-reported basis and a decrease of approximately $50 million on an operating (non-GAAP) basis. The same mathematical exercise resulted in an increase of approximately $50 million in the first three months of 2021 on an as-reported basis and an increase of approximately $70 million on an operating (non-GAAP) basis. We view these amounts as a theoretical maximum impact to our as-reported financial results. Considering the operational responses mentioned above, movements of exchange rates, and the nature and timing of hedging instruments, it is difficult to predict future currency impacts on any particular period, but we believe it could be substantially less than the theoretical maximum given the competitive pressure in the marketplace.

For non-U.S. subsidiaries and branches that operate in U.S. dollars or whose economic environment is highly inflationary, translation adjustments are reflected in results of operations. Generally, we manage currency risk in these entities by linking prices and contracts to U.S. dollars.

Liquidity and Capital Resources

In our 2021 Annual Report, on pages 47 to 49, there is a discussion of our liquidity including two tables that present three years of data. The table presented on page 47 includes consolidated net cash from operating activities, cash and cash equivalents, restricted cash and short-term marketable securities, and the size of our global credit facilities for each of the past three years. For the three months ended, or at, as applicable, March 31, 2022, those amounts are $3.2 billion of consolidated net cash from operating activities, $10.8 billion of cash and cash equivalents, restricted cash and short-term marketable securities and $10.0 billion in global credit facilities, respectively. While we have no current plans to draw on these credit facilities, they are available as back-up liquidity.

The major rating agencies' ratings on our debt securities at March 31, 2022 appear in the following table and remain unchanged from December 31, 2021.

IBM RATINGS:	STANDARD AND POOR'S	MOODY'S INVESTORS SERVICE
Senior long-term debt	A-	A3
Commercial paper	A-2	Prime-2

IBM has ample financial flexibility, supported by our strong liquidity position and cash flows, to operate at a single A credit rating. While debt levels have increased $2.5 billion from December 31, 2021 primarily due to new debt issuances in the first quarter of 2022, debt levels have decreased $18.8 billion from our peak levels at June 30, 2019 (immediately preceding the Red Hat acquisition).

We do not have "ratings trigger" provisions in our debt covenants or documentation, which would allow the holders to declare an event of default and seek to accelerate payments thereunder in the event of a change in credit rating. Our debt covenants are well within the required levels. Our contractual agreements governing derivative instruments contain standard market clauses which can trigger the termination of the agreement if our credit rating were to fall below investment grade. At March 31, 2022, the fair value of those instruments that were in a liability position was $231 million, before any applicable netting, and this position is subject to fluctuations in fair value period to period based on the level of our outstanding instruments and market conditions. We have no other contractual arrangements that, in the event of a change in credit rating, would result in a material adverse effect on our financial position or liquidity.

In July 2017, the UK's Financial Conduct Authority (FCA), which regulates the London Interbank Offered Rate (LIBOR), had announced its intent to phase out LIBOR by the end of 2021 and the Alternative Reference Rates Committee identified the Secured Overnight Financing Rate (SOFR) as its preferred alternative rate for USD LIBOR. In March 2021, the FCA extended the phase out in the case of U.S. dollar settings for certain tenors until the end of June 2023. Effective December 31, 2021, the use of LIBOR was substantially eliminated for purposes of any new financial contract executions. Any legacy USD LIBOR based financial contracts are expected to be addressed using the LIBOR rates published through the June 2023 extension period. The replacement of the LIBOR benchmark within the company's risk management activities did not have a material impact in the consolidated financial results.

We prepare our Consolidated Statement of Cash Flows in accordance with applicable accounting standards for cash flow presentation on page 7 of this Form 10-Q and highlight causes and events underlying sources and uses of cash in that format on pages 64 and 65. For the purpose of running its business, IBM manages, monitors and analyzes cash flows in a different manner.

Management uses free cash flow as a measure to evaluate its operating results, plan shareholder return levels, strategic investments and assess its ability and need to incur and service debt. The entire free cash flow amount is not

necessarily available for discretionary expenditures. We define free cash flow as net cash from operating activities less the change in Financing receivables and net capital expenditures, including the investment in software. A key objective of the Financing business is to generate strong returns on equity, and our Financing receivables are the basis for that growth. Accordingly, management considers Financing receivables as a profit-generating investment, not as working capital that should be minimized for efficiency. Therefore, management includes presentations of both free cash flow and net cash from operating activities that exclude the effect of Financing receivables.

The following is management's view of cash flows for the first three months of 2022 and 2021 prepared in a manner consistent with the description above and is presented on a consolidated basis, including cash flows of discontinued operations.

(Dollars in millions) **For the three months ended March 31:**	**2022**	**2021**
Net cash from operating activities per GAAP*	$ 3,248	$ 4,914
Less: change in Financing receivables	1,631	2,863
Net cash from operating activities, excluding Financing receivables	$ 1,618	$ 2,052
Capital expenditures, net	(378)	(529)
Free cash flow	$ 1,240	$ 1,522
Acquisitions	(698)	(1,120)
Divestitures	61	(15)
Common stock repurchases for tax withholdings	(80)	(41)
Dividends	(1,475)	(1,457)
Non-Financing debt	4,675	(1,725)
Other (includes Financing net receivables and Financing debt)	(510)	(166)
Change in cash, cash equivalents, restricted cash and short-term marketable securities	$ 3,213	$ (3,002)

* Includes cash flows of discontinued operations. See note 3, "Separation of Kyndryl," for additional information.

In the first three months of 2022, we generated free cash flow of $1.2 billion, a decrease of $0.3 billion versus the prior-year period. In the first quarter of 2022, we also continued to return value to shareholders with $1.5 billion in dividends and invested $0.7 billion in acquisitions.

Events that could temporarily change the historical cash flow dynamics discussed previously and in our 2021 Annual Report include significant changes in operating results, material changes in geographic sources of cash, unexpected adverse impacts from litigation, future pension funding requirements, periods of severe downturn in the capital markets or the timing of tax payments. Whether any litigation has such an adverse impact will depend on a number of variables, which are more completely described in note 14, "Contingencies," in this Form 10-Q. With respect to pension funding, we expect to make legally mandated pension plan contributions to certain non-U.S. defined benefit plans of approximately $200 million in 2022. Contributions related to all retirement-related plans are expected to be approximately $2.1 billion in 2022. Financial market performance could increase the legally mandated minimum contributions in certain non-U.S. countries that require more frequent remeasurement of the funded status. We are not quantifying any further impact from pension funding because it is not possible to predict future movements in the capital markets or pension plan funding regulations.

In 2022, we are not legally required to make any contributions to the U.S. defined benefit pension plans.

Our cash flows are sufficient to fund our current operations and obligations, including investing and financing activities such as dividends and debt service. When additional requirements arise, we have several liquidity options available. These options may include the ability to borrow additional funds at reasonable interest rates and utilizing our committed global credit facilities. With our share repurchase program suspended since the close of the Red Hat acquisition, our overall shareholder payout remains at a comfortable level and we remain fully committed to our long-standing dividend policy.

Financing

Financing is a reportable segment that is measured as a stand-alone entity. Financing facilitates IBM clients' acquisition of information technology systems, software and services by providing financing solutions in the areas where the company has the expertise, while generating solid returns on equity.

Results of Operations

(Dollars in millions) For the three months ended March 31:	2022	2021*	Yr. to Yr. Percent/ Change
Revenue	$ 154	$ 208	(26.2)%
Pre-tax income	$ 84	$ 98	(14.3)%

* Recast to reflect 2021 segment changes.

Our Financing business remains focused on IBM's products and services. For the three months ended March 31, 2022, financing revenue decreased 26.2 percent (24 percent adjusted for currency) compared to the prior year, driven by client financing down $53 million to $152 million. The decrease in client financing revenue was due to a lower average asset balance, primarily driven by the strategic actions taken in the prior year including selling certain client financing receivables to third parties. While these strategic actions impact revenue and pre-tax income on a year-to-year basis, our repositioning of the Financing business has strengthened our liquidity position, improved the quality of our portfolio, and lowered our debt needs.

Financing pre-tax income decreased 14.3 percent to $84 million compared to the prior year and the pre-tax margin of 54.6 percent increased 7.6 points year to year. The decrease in pre-tax income was driven by a decrease in gross profit, partially offset by a decrease in total expense, primarily as a result of the strategic actions described above.

Financial Position

(Dollars in millions)	At March 31, 2022	At December 31, 2021
Cash and cash equivalents	$ 825	$ 1,359
Client financing receivables:		
Net investment in sales-type and direct financing leases [1]	3,285	3,396
Client loans	7,908	8,818
Total client financing receivables	$ 11,193	$ 12,215
Commercial financing receivables		
Held for investment	192	444
Held for sale	410	793
Other receivables	49	61
Total external receivables [2]	$ 11,843	$ 13,512
Intercompany financing receivables [3] [4]	727	778
Other assets [5]	1,076	1,231
Total assets	$ 14,471	$ 16,880
Intercompany payables [3]	$ 163	$ 467
Debt [6]	12,168	13,929
Other liabilities	788	937
Total liabilities	$ 13,119	$ 15,333
Total equity	$ 1,352	$ 1,547
Total liabilities and equity	$ 14,471	$ 16,880

(1) Includes deferred initial direct costs which are expensed in IBM's consolidated financial results.
(2) The difference between the decrease in total external receivables of $1.7 billion (from $13.5 billion in December 2021 to $11.8 billion in March 2022) and the $1.6 billion change in Financing segment's receivables disclosed in the free cash flow presentation on page 69 is primarily attributable to currency impacts.
(3) This entire amount is eliminated for purposes of IBM's consolidated financial results and therefore does not appear in the Consolidated Balance Sheet.
(4) These assets, along with all other financing assets in this table, are leveraged at the value in the table using Financing segment debt.
(5) Includes $0.6 billion of other intercompany assets in March 2022 and $0.7 billion in December 2021.
(6) Financing segment debt is primarily composed of intercompany loans.

Total external receivables decreased $1,669 million primarily due to collections of higher year-end balances, with corresponding reductions in debt funding.

At March 31, 2022, we continue to apply our rigorous credit policies. Approximately 68 percent of the total external portfolio was with investment-grade clients with no direct exposure to consumers, an increase of 4 points year to year and an increase of 1 point compared to December 31, 2021. This investment grade percentage is based on the credit ratings of the companies in the portfolio and reflects certain mitigating actions taken to reduce the risk to IBM.

We have a long-standing practice of taking mitigation actions, in certain circumstances, to transfer credit risk to third parties. These actions may include credit insurance, financial guarantees, nonrecourse borrowings, transfers of receivables recorded as true sales in accordance with accounting guidance or sales of equipment under operating lease. Sale of receivables arrangements are also utilized in the normal course of business as part of our cash and liquidity management.

Throughout 2021, sales of client financing receivables were utilized as part of the company's cash and liquidity management as well as for credit mitigation. In the first quarter of 2022, sales of client financing receivables were largely focused on credit mitigation. In addition, the company has an existing agreement with a third-party investor to sell IBM short-term commercial financing receivables on a revolving basis. The company has expanded this agreement to other countries and geographies since commencement in the U.S. and Canada in 2020.

The following table presents the total amount of client and commercial financing receivables transferred:

(Dollars in millions) For the three months ended March 31:	2022	2021
Client financing receivables		
Lease receivables	$ 15	$ 342
Loan receivables	2	653
Total client financing receivables transferred	$ 17	$ 995
Commercial financing receivables		
Receivables transferred during the period	$ 1,989	$ 1,167
Receivables uncollected at end of period*	724	724

* Of the total amount of commercial financing receivables sold and derecognized from the Consolidated Balance Sheet, the amounts presented remained uncollected from the business partners as of March 31, 2022 and 2021.

For additional information relating to financing receivables refer to note 9, "Financing Receivables." Refer to pages 22 through 26 for additional information related to Financing segment receivables, allowance for credit losses and debt.

Return on Equity Calculation

(Dollars in millions) For the three months ended March 31:	2022	2021*
Numerator		
Financing after-tax income**	$ 69	$ 73
Annualized after-tax income (1)	$ 275	$ 290
Denominator		
Average Financing equity (2)È	$ 1,450	$ 2,184
Financing return on equity (1)/(2)	19.0 %	13.3 %

* Recast to reflect 2021 segment changes.

** Calculated based upon an estimated tax rate principally based on Financing's geographic mix of earnings as IBM's provision for income taxes is determined on a consolidated basis.

+ Average of the ending equity for Financing for the last two quarters.

Return on equity was 19.0 percent compared to 13.3 percent for the three months ended March 31, 2022 and 2021, respectively. The increase was primarily driven by a lower average equity balance, which reflects the strategic actions taken in the prior year to reposition the Financing business.

Residual Value

Residual value is a risk unique to the financing business, and management of this risk is dependent upon the ability to accurately project future equipment values at lease inception. Financing has insight into product plans and cycles for IBM products. Based upon this product information, Financing continually monitors projections of future equipment values and compares them with the residual values reflected in the portfolio.

Financing optimizes the recovery of residual values by selling assets sourced from end of lease, leasing used equipment to new clients, or extending lease arrangements with current clients.

The following table presents the recorded amount of unguaranteed residual value for sales-type and direct financing leases, as well as operating leases at March 31, 2022 and December 31, 2021. In addition, the table presents the run out of when the unguaranteed residual value assigned to equipment on leases at March 31, 2022 is expected to be returned to the company.

Unguaranteed Residual Value

(Dollars in millions)	At December 31, 2021	At March 31, 2022	Estimated Run Out of March 31, 2022 Balance			
			2022	2023	2024	2025 and Beyond
Sales-type and direct financing leases	$ 335	$ 325	$ 72	$ 128	$ 65	$ 60
Operating leases	13	10	6	2	0	2
Total unguaranteed residual value	$ 348	$ 335	$ 78	$ 130	$ 65	$ 62

GAAP Reconciliation

The tables below provide a reconciliation of our income statement results as reported under GAAP to our operating earnings presentation which is a non-GAAP measure. Management's calculation of operating (non-GAAP) earnings, as presented, may differ from similarly titled measures reported by other companies. Please refer to the "Operating (non-GAAP) Earnings" section for management's rationale for presenting operating earnings information.

(Dollars in millions except per share amounts) For the three months ended March 31, 2022:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	U.S. Tax Reform Impacts	Kyndryl-Related Impacts	Operating (non-GAAP)
Gross profit	$ 7,335	$ 181	$ —	$ —	$ —	$ 7,516
Gross profit margin	51.7 %	1.3 pts.	— pts.	— pts.	— pts.	52.9 %
S,G&A	$ 4,597	$ (286)	$ —	$ —	$ 0	$ 4,311
Other (income) and expense	246	(1)	(202)	—	(222)	(179)
Total expense and other (income)	6,712	(287)	(202)	—	(222)	6,001
Pre-tax income from continuing operations	623	468	202	—	222	1,515
Pre-tax margin from continuing operations	4.4 %	3.3 pts.	1.4 pts.	— pts.	1.6 pts.	10.7 %
Provision for (benefit from) income taxes*	$ (39)	$ 109	$ 58	$ 116	$ —	$ 244
Effective tax rate	(6.3)%	9.1 pts.	4.6 pts.	7.7 pts.	0.9 pts.	16.1 %
Income from continuing operations	$ 662	$ 359	$ 144	$ (116)	$ 222	$ 1,271
Income margin from continuing operations	4.7 %	2.5 pts.	1.0 pts.	(0.8)pts.	1.6 pts.	9.0 %
Diluted earnings per share from continuing operations	$ 0.73	$ 0.39	$ 0.16	$ (0.13)	$ 0.24	$ 1.40

(Dollars in millions except per share amounts) For the three months ended March 31, 2021:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	U.S. Tax Reform Impacts	Kyndryl-Related Impacts	Operating (non-GAAP)
Gross profit	$ 7,027	$ 174	$ —	$ —	$ —	$ 7,201
Gross profit margin	53.3 %	1.3 pts.	— pts.	— pts.	— pts.	54.6 %
S,G&A	$ 4,688	$ (288)	$ —	$ —	$ —	$ 4,399
Other (income) and expense	346	(1)	(332)	—	—	13
Total expense and other (income)	6,784	(289)	(332)	—	—	6,162
Pre-tax income from continuing operations	244	463	332	—	—	1,039
Pre-tax margin from continuing operations	1.8 %	3.5 pts.	2.5 pts.	— pts.	— pts.	7.9 %
Provision for (benefit from) income taxes*	$ (160)	$ 132	$ 33	$ 19	$ —	$ 25
Effective tax rate	(65.5)%	41.9 pts.	24.2 pts.	1.8 pts.	— pts.	2.4 %
Income from continuing operations	$ 403	$ 330	$ 299	$ (19)	$ —	$ 1,013
Income margin from continuing operations	3.1 %	2.5 pts.	2.3 pts.	(0.1)pts.	— pts.	7.7 %
Diluted earnings per share from continuing operations	$ 0.45	$ 0.37	$ 0.33	$ (0.02)	$ —	$ 1.12

* The tax impact on operating (non-GAAP) pre-tax income/(loss) from continuing operations is calculated under the same accounting principles applied to the GAAP pre-tax income/(loss) which employs an annual effective tax rate method to the results.

Forward-Looking and Cautionary Statements

Except for the historical information and discussions contained herein, statements contained in this Form 10-Q may constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are based on the company's current assumptions regarding future business and financial performance. These statements involve a number of risks, uncertainties and other factors that could cause actual results to differ materially, including, but not limited to, the following: a downturn in economic environment and client spending budgets; a failure of the company's innovation initiatives; damage to the company's reputation; risks from investing in growth opportunities; failure of the company's intellectual property portfolio to prevent competitive offerings and the failure of the company to obtain necessary licenses; the company's ability to successfully manage acquisitions, alliances and dispositions, including integration challenges, failure to achieve objectives, the assumption of liabilities, and higher debt levels; fluctuations in financial results; impact of local legal, economic, political, health and other conditions; the company's failure to meet growth and productivity objectives; ineffective internal controls; the company's use of accounting estimates; impairment of the company's goodwill or amortizable intangible assets; the company's ability to attract and retain key employees and its reliance on critical skills; impacts of relationships with critical suppliers; product quality issues; impacts of business with government clients; reliance on third party distribution channels and ecosystems; cybersecurity and data privacy considerations; adverse effects related to climate change and environmental matters, tax matters; legal proceedings and investigatory risks; the company's pension plans; currency fluctuations and customer financing risks; impact of changes in market liquidity conditions and customer credit risk on receivables; potential failure of the separation of Kyndryl to qualify for tax-free treatment; risk factors related to IBM securities; and other risks, uncertainties and factors discussed in the company's Form 10-Qs, Form 10-K and in the company's other filings with the U.S. Securities and Exchange Commission or in materials incorporated therein by reference. Any forward-looking statement in this Form 10-Q speaks only as of the date on which it is made. Except as required by law, the company assumes no obligation to update or revise any forward-looking statements.

Item 4. Controls and Procedures

The company's management evaluated, with the participation of the Chief Executive Officer and Chief Financial Officer, the effectiveness of the company's disclosure controls and procedures as of the end of the period covered by this report. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that the company's disclosure controls and procedures were effective as of the end of the period covered by this report. There has been no change in the company's internal control over financial reporting that occurred during the quarter covered by this report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting.

Part II — Other Information

Item 1. Legal Proceedings

Refer to note 14, "Contingencies," in this Form 10-Q.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds and Issuer Repurchases of Equity Securities

The following table provides information relating to the company's repurchase of common stock for the first quarter of 2022.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Program	Approximate Dollar Value of Shares that May Yet Be Purchased Under The Program*
January 1, 2022 - January 31, 2022	—	$ —	—	$ 2,007,611,768
February 1, 2022 - February 28, 2022	—	$ —	—	$ 2,007,611,768
March 1, 2022 - March 31, 2022	—	$ —	—	$ 2,007,611,768
Total	—	$ —	—	

* On October 30, 2018, the Board of Directors authorized $4.0 billion in funds for use in the company's common stock repurchase program. The company stated that it would repurchase shares on the open market or in private transactions depending on market conditions. The common stock repurchase program does not have an expiration date. This table does not include shares tendered to satisfy the exercise price in connection with cashless exercises of employee stock options or shares tendered to satisfy tax withholding obligations in connection with employee equity awards.

The company suspended its share repurchase program at the time of the Red Hat closing. At March 31, 2022 there was approximately $2.0 billion in authorized funds remaining for purchases under this program.

Item 5. Other Information

Amendment to By-Laws

As disclosed in the company's 2022 Proxy Statement filed on March 7, 2022, Michael L. Eskew was not a nominee for election at the company's annual meeting of stockholders held on April 26, 2022, and his term on the Board of Directors ended. As a result, Article III, Section 2 of the company's By-Laws was amended to decrease the number of directors to twelve, effective April 26, 2022. The full text of IBM's By-Laws, as amended effective April 26, 2022, is included as Exhibit 3.2 to this report.

Item 6. Exhibits

Exhibit Number	
3.2	The By-Laws of IBM, as amended through April 26, 2022.
31.1	Certification by principal executive officer pursuant to Rule 13A-14(a) or 15D-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification by principal financial officer pursuant to Rule 13A-14(a) or 15D-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification by principal executive officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification by principal financial officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document – the instance document does not appear on the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File – the cover page interactive data file does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

International Business Machines Corporation
(Registrant)

Date: April 26, 2022

By: /s/ Robert F. Del Bene
Robert F. Del Bene
Vice President and Controller

Exhibit 31.1

CERTIFICATION PURSUANT TO RULE 13A-14(a) OR 15D-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Arvind Krishna, certify that:

1. I have reviewed this quarterly report on Form 10-Q of International Business Machines Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

    a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 26, 2022

/s/Arvind Krishna

Arvind Krishna
Chairman and Chief Executive Officer

Exhibit 31.2

CERTIFICATION PURSUANT TO RULE 13A-14(a) OR 15D-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, James J. Kavanaugh, certify that:

1. I have reviewed this quarterly report on Form 10-Q of International Business Machines Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

    a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 26, 2022

/s/ James J. Kavanaugh

James J. Kavanaugh
Senior Vice President and Chief Financial Officer

Exhibit 32.1

INTERNATIONAL BUSINESS MACHINES CORPORATION

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of International Business Machines Corporation (the "Company") on Form 10-Q for the period ending March 31, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Arvind Krishna, Chairman and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Arvind Krishna

Arvind Krishna
Chairman and Chief Executive Officer
April 26, 2022

A signed original of this written statement required by Section 906 has been provided to IBM and will be retained by IBM and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

INTERNATIONAL BUSINESS MACHINES CORPORATION

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of International Business Machines Corporation (the "Company") on Form 10-Q for the period ending March 31, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, James J. Kavanaugh, Senior Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ James J. Kavanaugh

James J. Kavanaugh
Senior Vice President and Chief Financial Officer
April 26, 2022

A signed original of this written statement required by Section 906 has been provided to IBM and will be retained by IBM and furnished to the Securities and Exchange Commission or its staff upon request.

EXHIBIT OMITTED FROM THIS DOCUMENT

The By-Laws of IBM, as amended through April 26, 2022.

Copies of this exhibit may be obtained without charge from Computershare Trust Company, N.A., P.O. Box 505005, Louisville, Kentucky 40233-5005.